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ABSTRACT

This task force report attempted to clarify the responsibilities of Alaska's schools, identify the practices essential to effective schooling, and make recommendations to institute these practices in the state. Following an historical perspective on the role of education and Alaska schools, the report lists three kinds of school responsibilities--primary (fulfilled by the school alone), shared (fulfilled in conjunction with other agencies), and supportive (fulfilled through helping other groups that provide education)--and specifies goals appropriate to each. The authors make broad recommendations for curriculum content in kindergarten through grade twelve. From the literature, factors associated with effective schooling are identified, with special emphasis on effects of the principal's instructional leadership, class size, computer-assisted instruction, parent participation, learning time factors, and classroom organization and grouping. Specific recommendations are offered regarding the formal specification of school responsibilities, revision of the elementary school course of study, revision of high school graduation requirements, and state adoption of recommendations for effective schooling practices. Additional recommendations pertain to monitoring and reporting, inservice activities, continued effort to identify additional effective schooling practices, and evaluation and refinement of practices. Also recommended is a general implementation strategy for a two-year period. (Author/JM)

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EFFECTIVE SCHOOLING PRACTICES

A Report Presented to The Honorable Jay S. Hammond Governor of Alaska

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Governor's Task Force on Effective Schooling

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ABSTRACT

The Governor's Task Force on Effective Schooling was established on January 6, 1981, as a result of Administrative Order Number 64, issued by the Honorable Jay S. Hammond, Governor of the State of Alaska. The Task Force was charged with three responsibilities, which were to:

1. Clarify responsibilities of schools.
2. Identify practices essential to effective schooling.
3. Submit a report to the Governor (after review by the State Board of Education) by September 1, 1981, which would contain a list of practices essential to effective schooling and recommendations for implementation of practices statewide.

Responsibilities of Schools

The Task Force adopted the position that education is a responsibility of society as a whole — parents and other family members, community members, churches, media, agencies, and the school — whereas schooling is the responsibility of the school. Schooling was defined as the process of being taught in a school, or the process of providing instruction in a structured setting.

Responsibilities of schools were regarded according to three differing categories, which were:

1. Primary — the providing of schooling — instruction — in basic skills, content and other skill areas comprising the curriculum and providing leadership in effecting positive relationships with parents, the community, and groups within the community.

2. Shared — providing instruction in skill or content areas in conjunction with groups, agencies, or private industry, as well as modeling and encouraging the development of behaviors and attitudes for which there exists general community support.

3. Supportive — maintaining a supportive relationship with those individuals and groups apart from the school which have primary responsibilities for education.

The Task Force specified what it considered to be appropriate goals of education for Alaska, with attendant subgoals, and recommended minimum levels of responsibility — primary, shared, or supportive — that should be assumed by schools for meeting them. In addition, the Task Force recommended content and skills to be included as part of the curriculum for schools, kindergarten through grade twelve.

Drawing upon broad research and theory, upon experience and upon research reviews of specific factors associated with schooling, forty-five specific effective schooling practices were identified. Research reviews of factors associated with schooling were conducted by the Northwest Regional Educational Laboratory, addressing the variables of:

Class size
Classroom organization and grouping
Computer assisted instruction
Parent participation
The principal as instructional leader
Time factors

Specific recommendations were developed by the Task Force regarding the formal specification of responsibilities of schools, revision of the elementary school course of study, revision of high school graduation requirements and adoption of statements of effective schooling practice. Additional recommendations were specified which pertain to monitoring and reporting, inservice, continued effort to identify additional effective schooling practices, and evaluation and refinement of practices. Also recommended was a general implementation strategy for a two-year period.

TABLE OF CONTENTS

	Page
Introduction	1
An Historical Perspective	3
Responsibilities of Schools	7
Recent Trends in Schooling	9
Goals of Education	13
The Curriculum	19
Elementary Curriculum	20
Grades Seven and Eight	21
Secondary Grades Nine through Twelve	22
Conditions and Practices Necessary for Effective Schooling	23
Primary Conditions	23
Indirect Conditions	26
Research-based Practices	29
The Principal as Instructional Leader	30
Class Size	31
Computer Assisted Instruction	31
Parent Participation	31
Time Factors	33
Classroom Organization and Grouping	34
Summary	34
Recommendations	35
Responsibility of Schools	35
Effective Schooling Practices	36
Monitoring and Reporting	37
Inservice	39
Continuation of Effort	41
Evaluation and Refinement	41
A General Implementation Strategy	42
Summary	43
Bibliography	44
Appendixes	
I Goals for Schooling in the U.S.	47
II Research Review Summaries	51
III Implementation Flow Chart	71
IV Sample Practices	75

INTRODUCTION

Alaska has long been noted for its excellent support of its public schools. From territorial days until present its citizens have been willing to contribute their resources to promote education of the young to an extent seldom matched by residents of other states. Examples of this willingness can be seen in the total state funding of schools in the Regional Education Attendance Areas, in the size of the general fund appropriation for public schools, in the capital and bond issue funds allocated to construction of school facilities including newly established secondary schools (where requested by local residents) throughout the state, in the funding of bilingual/bicultural education, and in many other ways.

During fiscal year 1980, a Task Force for Developing Recommendations for the Strengthening of the Foundation Support Program was established by the State Board of Education. That Task Force, meeting over a period of several months, recommended a number of changes regarding the funding of the public schools. Many of the recommendations were enacted, resulting in an increase in support of over $83,000,000 for K-12 school programs.

While Alaskans have stood apart from residents of other states in the degree of willingness to support public schools, they have shared with citizens everywhere the concern that their tax dollars were providing effective schooling. This sentiment was expressed by the Honorable Jay S. Hammond, Governor, in a communication to Vincent H. Casey, President of the State Board of Education, in which the Governor requested that the State Board identify a process for determining the quality of education achieved with state funds.

In July, 1980, the State Board of Education directed the staff of the Department of Education to address the question of assessing the quality of education. Department staff accepted the challenge and produced a document entitled *A Proposal for Defining Responsibility and Effective Schooling.* In that paper a distinction was made between education (a responsibility of society as a whole) and schooling (the responsibility of schools). In addition, the question of practices which contribute to effective schooling was addressed. Some of these practices were regarded as givens, i.e., those procedures commonly accepted as contributing to learning Also considered was a means of identifying additional practices supported by research which contribute to school effectiveness — achievement by students — and which have general applicability.

The document prepared by department staff was considered by the Board at its regular meeting held October 9, 1980, and was enthusiastically adopted as a proposal for addressing the two questions of responsibility and effectiveness.

Subsequent to action by the State Board, the staff of the Office of the Governor became interested in the concepts presented in the paper. Lieutenant Governor Terry Miller, addressing the Association of Alaska School Boards in Anchorage in mid-November, called for the formation of the Governor's Task Force on Effective Schooling.

Governor Hammond, on January 6, 1981, issued Administrative Order Number 64 which created the Governor's Task Force on Effective Schooling comprised of the President of the State Board of Education as chairman, one teacher, one administrator, one local board member, one representative of the University of Alaska, six persons representing the general public, and two ex-officio members.

As specified in the Administrative Order[1] establishing the Task Force, its duties were to:

1. Formulate and adopt a statement clarifying the responsibilities of public schools.

2. Identify from educational research related to instruction, administration, and management of public education, practices essential to effective schooling, taking into account practices which the task force believes have applicability to Alaskan students and schools, and for which the nature and quality of the evidence promotes reasonable confidence that the practices are effective.

3. After review by the State Board of Education, submit a final report to the Governor no later than September 1, 1981, which includes, at a minimum, a listing of practices essential to effective schooling and recommendations necessary to the implementation of effective practices statewide.

[1]Alaska Administrative Order Number 64. January 6, 1981.

AN HISTORICAL PERSPECTIVE

Education is a process of instructing — either directly by teaching or indirectly by model, precept or example — in order that the individual or group may acquire knowledge, skills, understandings, and appreciations. It is a process as old as civilizations and predates the establishment of formal institutions called schools.

When this nation was established and its Constitution drafted, education was regarded as a province of the states. Indeed, in every state constitution public education is addressed, and public schools are designated as a responsibility of the state. Although educational matters were to be state concerns, the leaders of that day were not indifferent to them. For example, Thomas Jefferson envisioned the nation being composed of educated yeoman farmers actively involved in the affairs of representative government; hence the need for schools. Massachusetts, under Horace Mann's leadership, developed a strong system of public schools during the Nineteenth Century. With westward expansion, as new communities were established, one of the first efforts of new residents was in most cases directed toward the establishment of a local school.

During the early Nineteenth Century, public schooling was limited to the elementary or common school grades — one through eight. In a less technical society — mostly agricultural — such a system seemed to suffice, although many capable young people were undoubtedly denied the right to pursue learning because they could not afford to attend secondary school. Public secondary schools had their beginning in Massachusetts in 1830. It was not until 1874, however, that the legal issue of whether or not high schools were to be part of the common school system was set tled by the Michigan Supreme Court which, in the Kalamazoo case, affirmed that tax funds could be used for high school support.

From the latter part of the Nineteenth Century until the present there has been an explosive chain of events which has reshaped the public schools and citizens' expectations of them. The industrial revolution came to America and as a result brought about a shift of population from rural to urban areas. Massive immigration, different in nature than that of an earlier time, occurred in the late Nineteenth and early Twentieth Centuries, resulting in a cultural pluralism far greater than that previously experienced. The population has become very mobile, with twenty percent of Americans moving to a new locale each year. The question of equality of opportunity has begun to be addressed. There have been quantum leaps in knowledge. As the nation has come to grips with societal ills — high unemployment among the young and among members of minority groups, drug abuse, prejudice, crime, promiscuity, et cetera — schools have frequently been looked upon as the means for providing solutions. Today we also live in an era of instant mass communication which has profound effect upon our lives.

With the advent of an industrial society, large numbers of unskilled and semi-skilled workers were needed to staff the factories and support industries. Thus, migrants from rural areas and immigrants from other countries with little formal education, or at best elementary school education, could be absorbed into the work force. A strong component of the American dream, however, has been the notion that one could better his or her lot by hard work and education. Additionally, as the ranks of immigranis swelled and more sophisticated machines were introduced, there came a time when there were more job seekers than jobs. Hence, many more young people attended high school.

In a period of stable population with cultural similarity, schools, the family, and the church most often worked in concert to stress common behaviors, attitudes, and values. With later periods of immigration came some diversity of values, although persons of similar backgrounds tended to congregate together for one or two generations and thus value disparities between the school, the home, and the church were minimal. Also, the nation was regarded as a great melting pot which, when stirred, would produce an American having everything in common with his or her fellow citizens. Conspicuously overlooked in the process, of course, were its first citizens, Native Americans; Black citizens, who had contributed so much to the building of the country; people of Hispanic origin, inhabiting territory acquired by the United States; and Asian residents, brought to this country to help build the West.

The very high mobility of America's population — both horizontally in location moves, and vertically through upward mobility — has resulted in less consensus in local communities regarding attitudes, values, and beliefs. Thus, the school, the family, the church, and other agencies are less frequently found working in concert. In addition, the societal changes have resulted in a tremendous number of households in which either both parents work or the single parent works with the result being that there is less parent-child interaction occurring than was the case in an earlier era.

In 1960 it was estimated that more knowledge had been accumulated in the previous ten years than had accrued through all of history up until 1950. Possibly our knowledge base has increased at an even more rapid rate during the past two decades. The result has been a dramatic change in the content of public schooling. With so much knowledge available, schooling switched in emphasis from acquiring a body of facts, to a greater focus upon learning how to learn. For example, science courses emphasized learning scientific method; history courses emphasized studying a small period in depth, as opposed to developing a broad perspective. It may be that process became so central in some content area study that concepts and facts were ignored.

Since the end of World War II, there has been a continual increase in the percentage of the school age population attending and completing high school. A societal expectation has evolved, which is that all young people complete a secondary school program. As a result, schools have changed in an attempt to serve a broader constituency. Whereas schools were once predominantly academic institutions imbued with the classics and providing limited curricular offerings, a change occurred in order to offer a comprehensive program with academic, vocational, and general tracks. Standards that once existed were frequently set aside in order to assure everyone an opportunity for what was regarded as success — acquiring a diploma. However, such changes regarding the public schools were not greeted by all segments of society with acclaim.

Traditionally, education (and its primary institution, the school) has been looked upon as a means of alleviating societal concerns. For example, when the Soviet Union launched Sputnik, Congress passed the National Defense Education Act in order to encourage more persons to enter the sciences and engineering. The Great Society of the 1960s with its War on Poverty looked to the schools to assist in the eradication of poverty. Drug abuse and changing sexual mores also resulted in people individually, as well as government units, looking to schools to overcome such concerns.

No examination of factors influencing the nation's schools and societal expectations would be complete without addressing the impact of media — notably television. An earlier generation of Americans contented itself with radio and motion pictures which were censored by industry-imposed boards of review. Parents had considerable control as to the films that their offsprings viewed. It is often difficult to decide whether media reflect or influence culture. Probably they do both. At any rate, in this day the media — and particularly the medium of television — have a profound impact upon our society. Television contributes much to the learning of the young, (albeit a passive kind of learning), it enables us to participate in many events of the world on an instantaneous basis, and it does much to enrich our lives. Yet very few advances are without trade-offs. Under the guise of entertainment, television provides fictional models which some persons would suggest are far less than ideal. It may tend to discourage involvement with print media. It may have a deleterious effect upon student performance. A study conducted by the California Department of Education in which 530,000 sixth graders and seniors were surveyed regarding viewing habits revealed that students who watched the most television received the lowest test scores.[2] The findings cut across all social, economic, and racial lines, the only exception being students with limited English. It may be argued that those students who are low achievers are more inclined to watch television, as opposed to watching television causing low achievement. However, there should be no doubt that students who watch three or more hours of television per day have little time to devote to school work at home.

How does Alaska compare with the nation as a whole when viewing societal changes and their impact upon its schools? Certainly there are many parallels, and yet there are some differences. We have gone through the transition from a system composed of mission, territorial city, and Bureau of Indian Affairs schools, to one of city, borough, and state-supported regional districts. We have not experienced large scale industrialization and the in-migration of people has been from other states in the Union. We are beginning to experience the impact of television on a statewide basis. We have abandoned the boarding school model of secondary schooling in order that children may attend high school in their local villages. Even more important, the right of citizens to retain their cultures of origin has been recognized and assisted through efforts to provide bicultural instruction. Alaskans have prided themselves upon being able to look for solutions unique to the state and its circumstances. Yet, when one compares criticisms and concerns expressed by Alaskans regarding education with those being expressed elsewhere in the nation, there is often a great deal of similarity.

Citizens in Alaska, as is the case with their counterparts in other states, are concerned with education. They are concerned that the young master basic skills, that they master concepts necessary for future success, that they understand and appreciate their cultural heritages, that they understand the responsibilities of citizenship, and that they acquire values enabling them to live in harmony with others. They are naturally upset when high school graduates appear not to have mastered the basic skills of computation and spelling. They are concerned that the money they provide is put to effective use to provide quality schooling.

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[2] "Student Achievement in California Schools, 1979-80." California Department of Education, Sacramento. (Quoted in *Alaska Education News*, [February, 1981], p. 11).

The concerns that citizens have expressed regarding the young go far beyond that for which the schools have responsibility. People have been expressing frustration regarding societal forces and systems that they feel either influence their offspring in ways which they regard as negative, or fail to influence the young in what they would perceive to be positive directions. As the school is the primary formal institution charged with responsibility for meeting educational goals, the frustration of citizens is most often aimed in that direction.

RESPONSIBILITIES OF SCHOOLS

As noted previously, education is a process of instructing — either directly by teaching, or indirectly by model, precept or example — in order that an individual or group may acquire knowledge, skills, understandings and appreciations. Education is a shared responsibility involving many segments of society with the aim of assisting the individual to maximize his or her potential as a human being living in concert with others.

Many facets of society have responsibility for education of the young. Parents and other family members have responsibility for training the child as an infant, for teaching the child self-help skills, for inculcating values, for insuring the acquiring of social behaviors, for encouraging learning, and for reinforcing the learning occurring in the school. Community members have educational responsibilities, whether by providing appropriate models as individuals, by being supportive of formal education, or by group action in specifying standards of behavior deemed appropriate. In rural areas the adults often work together to teach the young subsistence skills. The peer group influences and contributes to the learning of the individual. Churches have in the past and continue to serve as educational agencies either through formal instruction or by example. The media — both electronic (especially television) and print — contribute to education. Agencies such as libraries, museums, scouts, boys' clubs, girls' clubs and others participate in and contribute to education. In rural areas village councils in some instances contribute to the support of preschool or Headstart programs. Native associations stage elders' conferences as a means of recording cultural heritage, as well as providing young people with an opportunity to become acquainted with their history. Industry, through the providing of materials and cooperative instructional or training programs, plays an important part. The school, of course, plays a central role in the educative process. These segments of society are interrelated and work in concert to provide for the education of the young. Different components have greater or lesser responsibilities at differing points in the individual child's development and no attempt should be made to consider them in order of priority.

The public school — normally encompassing grades kindergarten through twelve — is the formal agency of society designated to provide a somewhat common set of experiences to all children (unless their parents opt to send them to a private school). Schools exist to meet common needs — i.e., needs such as to learn to read, to write, to compute. They exist because it is more economical in time (and hopefully in money) to provide group instruction to meet those common needs. As mentioned previously, expectations for public schools were once limited to providing instruction in basics and formal academic learning. As society changed schools were often called upon to assume more and more responsibilities formerly the province of other segments of society. School people, eager to try to meet unmet needs, assumed such responsibility because they cared about students. Teachers found themselves performing such tasks as collecting lunch money. In some schools, teachers have served as bank tellers for school savings programs because it was decided that it was important to teach children the value of thrift and saving for a rainy day. The effect of all this has been for more and more expectations to be placed upon schools, which in turn resulted in school staffs having less time to devote to their primary responsibility — that of providing schooling.[1]

[1]See Section on Time Factors, pp. 51-3.

Schooling is defined as the process of being taught in a school or the process of providing instruction in a structured setting. It involves having a clearly defined curriculum in which scope and sequence are addressed. It involves providing a well-trained staff, appropriate materials, and an organizational structure economical of time and resources — both human and physical.

Because so many diverse segments of society contribute to the education of the young, there are many types of both formal and informal learning that are beyond the control of the school. *Because the school does not and should not control all learning experiences, the responsibilities of the public school should be limited to that over which it has direct control.*

Responsibility assumed by the school may be categorized as follows:

1. *Primary.*

   a. Providing schooling, i.e., instruction in basic skills, content, and other skills designated as part of the curriculum.

   b. Providing leadership in effecting positive relationships with parents, the community, and groups within the community.

2. *Shared.*

   a. Providing instruction in skill or content areas in conjuction with groups, agencies, or private industry such as vocational education involving on-the-job training.

   b. Modeling and encouraging the development of behaviors and attitudes for which there exists general community support.

3. *Supportive.*

   a. The maintenance of a supportive relationship with those individuals and groups which also have a primary responsibility for providing education. This would involve recognition of value systems of individual families or culturally different groups, and insuring that the school does not transgress on the private domain of individuals. It would involve being supportive of efforts of agencies already in existence as opposed to assuming responsibilities for services in existence. An example of the latter would be support of mental health agencies as opposed to expanding the school's staff to include counseling psychologists.

RECENT TRENDS IN SCHOOLING

Observers of the public school scene during the past decade have witnessed a great deal of controversy regarding their effectiveness. Societal changes and disruptions combined to both change expectations for schools and to inhibit the providing of effective schooling.

The product of education is the young adult. When the product is found to be wanting by a large number of older citizens, then attention becomes focused upon the public school because it is the formal institution most readily linked to education. Additionally, nearly everyone is an expert on the public schools because the vast majority of the population attended one.

What have been the specific complaints? Many of them have focused upon lack of proficiency in basic skills. Still others find fault with behaviors and attitudes of the young. The latter of course are not the sole responsibility of the school, but rather a shared or supportive responsibility, with the outcome largely influenced by other segments of society contributing to education, most notable of which is the family. Societal changes and influences together with the generation gap — that difference in attitudes and values which seems to occur with each new generation — have made educating the young difficult for the family as well.

Dissatisfaction with the product of education has led to a number of proposed remedies — some positive and some less so. They include more emphasis on preservice and inservice training for teachers, curriculum revision, highly structured evaluation systems for teachers, competency-based education and minimal competency testing. The overriding concern has been that of accountability, but it has not always been clear as to whether accountability has been an expectation solely of the school, whether it includes other components of society, or whether the student was to be held accountable. Usually, it has been the school and, more specifically, teachers who have been regarded as being accountable.

Interesting changes have occurred over the past thirty years regarding the public's attitude toward, and expectations of teachers. As Tomlinson has stated:

> *"When gripped by nostalgia, educators are fond of recalling that until about 1950 the modern history of public schooling was marked by comparative tranquility and public esteem. In memory, arguments were largely parochial and confined to disputes about matters of pedagogical theory. The public, grateful for the rendered services, regarded schools in a light akin to the church: as institutions of integrity, peopled by teachers and principals whose standards of conduct approached the moral level of the clergy, and whose dedication to their task of educating the young held them harmless from occasional complaints of dissatisfied parents or unhappy children. Although socially imposed standards of conduct were strict and pay was spartan, teachers were partially consoled by the public's esteem and gratitude and by their own generally unquestioned and unchallenged authority.*
>
> *An as yet unrealized consolation was provided by a public that gave little thought to such things as teacher competency. Teachers were thought to be nurturant and, although some had 'pets', largely fair in their judgments. Character and conduct were critical and, even more than subject-matter competence, seemed to determine eligibility to teach. Indeed, in many instances, especially in rural settings, competence was assumed if teachers' knowledge just exceeded that of the children."*[1]

[1]Tommy M. Tomlinson. "The Troubled Years: An Interpretive Analysis of Public Schooling Since 1950." Washington: (National Institute of Education), 1980, pp. 1-2. (Mimeographed.)

Tomlinson[3] made the further point that responsibility for learning rested with the child. Failure to achieve was regarded as evidence of either lack of ability or lack of effort. It was also felt that children who worked hard could achieve regardless of ability. In other words, teachers provided instruction; it was up to the student to learn.

In more recent times teachers have faced the brunt of criticism when students have failed to learn. Failure of the student to learn — to achieve — came to be regarded as a failure of the teacher.

What has caused the pendulum of responsibility to swing from the position whereby the student was responsible for his or her achievement to one in which the teacher was held responsible? Certainly no one event brought about the change; rather it was the multiplicity of occurrences that can best be subsumed under the concept of societal change including mobility, knowledge explosion, the flight to the suburbs, greater incidence of staying in school as opposed to dropping out, technological advances, impact of media, and moving away from the "Melting Pot" concept to one of recognizing and valuing cultural differences. Teachers themselves care about students and failure of students to learn has been unsettling to them.

In considering the question of responsibilities of schools, it is imperative to bear in mind that schools provide instruction, but do not or can not guarantee learning. This is not to suggest that school staffs should be indifferent to whether or not students learn. They have the responsibility to ensure that effective instruction is taking place, that effective practices are used, and that efforts have been made to match instruction to individual learning style, if possible. But, ultimately, the student must accept responsibility if learning is to occur.

Two events of the 1960s totally apart from the public schools probably had more to do with laying the groundwork for future criticism of schools than any others. The first of these was the Johnson Administration's Great Society and the second was the Vietnam War.

Under the Great Society, federal involvement in education was greatly expanded, most notably with the Elementary and Secondary Education Act, with its funding for compensatory education programs such as Title I. In addition, schools were involved more directly with the War on Poverty through such programs as the Neighborhood Youth Corps. School personnel were, in large measure, eager to accept the funds after many years of searching for ways to provide more effective instruction and often feeling hampered by lack of financial support. Unfortunately, in many instances grant writers promised more than could be delivered, or as frequently perhaps failed to clearly state what was to be accomplished, which ultimately has led to public disillusionment as to the effectiveness of public schools.

Another aspect of the Great Society and subsequent programs under later administrations was the emphasis on funding change agents. Vista Volunteers have frequently been advocates of change as they have assumed roles of providing volunteer service. The Education Profession Development Act focused upon preparing "change agents" who would reshape the public schools. Legal Services organizations assumed advocacy roles. The overriding message was that the establishment — the professionals in the public schools — could not be trusted, resulting in the development of adversarial relationships.

The war that many Americans now wish that they could have ignored also had a profound effect on the public schools in that it brought about a general disillusionment with the system of which the public school is a part. It too, promoted distrust of the establishment. Thousands of young adults dropped out of the mainstream of American life and became a part of a counter-culture which had a profound influence on those still of school age.

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[3]Tomlinson. p.2.

Suffice to say that the events of the sixties and early seventies combined to bring about a reexamination of public schools and a search for remedies. One such remedy has been the competency movement and its attendant quest for account ability. In its earlier form it was referred to as goal-based schooling and drew heavily upon behavioral psychology. Specifically, it involved defining goals, specifying measurable behavioral objectives, prescribing activities leading to the mastery of objectives and evaluating outcomes.

School systems with well-defined curricula do have identifiable goals. Teachers who are effective do identify objectives to which they key instruction. Readily measurable objectives lend themselves to some aspects of instruction quite well — basic skill areas, for example. In other areas such as literature the fit is not all that precise. Additionally, the reducing of all aspects of school learning to objectives has some other problems. In learning to read, children can become so involved in learning the mechanics of decoding that comprehension — understanding what is read — receives short shrift. A mechanistic approach to all learning does not take into account the insights that some children often experience which enable them to master several related skills or concepts at once. A mechanistic approach can do much to remove the joy from learning. This is not to suggest that objectives need not be determined nor that an objective-based approach should not be used in instruction in certain skill areas. Rather, it is a caution against reductionism in which all school learning would be reduced to the mastery of narrow, specific objectives.

Competency-based schooling has enjoyed a period of vogue in recent years, a system not dissimilar from objective based. In this instance, district goals, program goals, and course goals might be established, followed by a series of specified competencies and accompanying narrowly-defined performance indicators. The strengths and limitations assigned to objective-based schooling apply to competency-based as well.

Both movements, objective-based and competency-based, have led to the establishment of minimal competency or proficiency examinations to be completed successfully by high school students. Florida, for example, has received national attention regarding its state-mandated minimal competency test. In Alaska, the Anchorage School District has used a competency test for assessing proficiency in mathematics and language arts for several years, with the proviso that students failing the test may retake it or enroll for remedial work to satisfy the requirement.

What are the limitations associated with the minimal competency approach to schooling? First, there is a tendency for the minimum to become the maximum. Second, there is a tendency to regard failure solely as a failure of the school, absolving the student of responsibility. Third, it promotes what Goodlad has termed the factory model of education.[6] Such a model envisions the raw material (the young child) entering at one end and emerging at the other as a finished product (the graduate). The movement is linear with no provision for vertical or right or left progression.

[6]John Goodlad. *What Schools Are For* (Bloomington, Indiana: Phi Delta Kappa Educational Foundation, 1979), p. 31.

Consideration of objective-based or competency-based systems of schooling is best left to local districts where local people are cognizant of local circumstances. Some districts may opt for competency tests provided that residents can be satisfied that the tests used will adequately sample the skills measured without taking an inordinate amount of instructional time. Other districts may wish to focus upon standards of achievement for successful completion of courses offered. Still other districts may adopt the position that additional skills — survival skills for the given locality — are just as important as computational and language arts skills. Other districts may be content to use standardized test results to address performance, provided that the distribution of scores for students in the district either fits what would normally be expected or exceeds expectation. Finally, districts with a diverse school population may wish to determine expectancy on the basis of aptitude measures (assuming that the test is appropriate for all students in the diverse population) and compare actual achievement gains with predicted gain.

Rather, the focus at the state level, and preferably at the local level as well, should be upon responsibility. The school's primary, shared and supportive responsibilities should be detailed so that all concerned can have a realistic picture of what can and can not be expected of the school. Also, along with definition of responsibilities of the school, it is paramount that attention be focused upon the responsibility of the learner, and that support for the efforts of the school be forthcoming from the parents and other members of the community.

GOALS OF EDUCATION

A goal is an ideal, something for which to strive, but seldom completely attained. A goal differs from an objective in that in the latter a behavior is specified which is measurable and generally attainable. Goals, then provide a useful purpose in providing the ideal toward which effort is directed.

The vast majority of school districts, and many states as well, have adopted goals of education. Typically, these efforts have been found lacking in either one or both of two respects. Frequently, they are stated in such simplistic language — basic skills, for example — as to be confusing or meaningless. Second, since they are stated as "goals of education," it is automatically assumed that the school (being the most readily identifiable institution with responsibility regarding education) bears the total burden of providing learning experiences leading toward the attainment of goals. Again, it is imperative to consider the school's responsibilities as being primary, shared, or supportive in a society where many components contribute to the education of the young.

Typical practice for local districts and states has been to involve a group in the formulation of goal statements — a sort of starting from ground zero and reinventing the wheel. Goals developed throughout the nation have a not too surprising similarity. Goodlad, through a process of examining numerous sets of goal statements has compiled a set of goals and subgoals which he presented as "Goals for Schooling in the U.S."[7] As a means of identifying appropriate goals and in order to specify responsibility for possible goal attainment the Task Force utilized Goodlad's work, identifying the subgoals related to each main goal as being a primary, shared, or supportive responsibility of the school.

The main goals as presented by Goodlad were:[8]

Mastery of basic skills or fundamental processes
Career education-vocational education
Intellectual development
Enculturation
Interpersonal Relations
Autonomy
Citizenship
Creativity and aesthetic perception
Self concept
Emotional and physical well-being
Moral and ethical character
Self-realization

Goals and subgoals, with designated responsibilities of schools as assigned by the Task Force are as follows.[9]

1. **Mastery of basic skills or fundamental processes:**

   Primary Responsibility

   Develop the ability to acquire ideas through reading and listening.

   Develop and ability to communicate ideas through writing and speaking.

   Develop the ability to understand and utilize mathematical concepts.

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[7]Goodlad, pp. 46-52.

[8]Goodlad, pp. 46-52.

[9]Goodlad, pp. 46-52. Goals and subgoals have been re-ordered from Goodlad's orginal listing. Where additions were made by the Task Force, they are shown in brackets ([]). Goodlad's subgoals 4.4, and 8.4 were deleted. Goodlad's ordering of goals and subgoals is presented in Appendix I.

Develop the ability to utilize available sources of information.

Develop the ability to read, write, and handle basic arithmetical operations.

2. **Career education-vocational education:**

Shared Responsibility

Develop the ability to select an occupation that will be personally satisfying and suitable to one's skills and interests.

Develop salable skills and specialized knowledge that will prepare one to become economically independent.

Develop attitudes and habits (such as pride in good workmanship) that will make the worker a productive participant in economic life.

Develop positive attitudes toward work, including acceptance of the necessity of making a living and an appreciation of the social value and dignity of work.

3. **Intellectual development:**

Primary Responsibility

Develop the ability to think rationally; i.e., thinking and problem solving skills, use of reasoning and the application of principles of logic, and skill in using different modes in inquiry.

Accumulate a general fund of knowledge, including information and concepts in mathematics, literature, natural science, and social science.

Shared Responsibility

Develop the ability to use and evaluate knowledge, i.e., critical and independent thinking that enables one to make judgments and decisions in a wide variety of life roles (e.g., citizen, consumer, worker, etc.) as well as in intellectual activities.

Develop the ability to make use of knowledge sources, utilizing technology to gain access to needed information.

Develop positive attitudes toward intellectual activity, including intellectual curiosity and a desire for further learning.

4. **Enculturation:**

Shared Responsibility

Develop insight into the values and characteristics of the civilization of which one is a member.

Develop awareness of cultural and historical heritages — the literary, aesthetic, and scientific traditions of the past — and familiarity with the ideas that have inspired and influenced mankind.

Develop understanding of the manner in which heritages and traditions of the past are operative today and influence the direction and values of society.

Examine the norms, values, standards, and traditions of the groups of which one is a member.

[Develop understanding, appreciation and respect for traditions of individuals from cultures other than one's own.]

5. **Interpersonal relations:**

Primary Responsibility

Develop skills in communicating effectively in groups.

Shared Responsibility

Develop the ability to identify with and advance the goals and concerns of others.

Develop the ability to form productive and satisfying relations with others based on respect, trust, cooperation, consideration, and caring.

Develop an understanding of the factors that affect social behavior.

Supportive Responsibility

Develop a knowledge of opposing value systems and their influence on the individual and society.

Develop an understanding of how members of a family function under different family patterns.

6. **Autonomy:**

Shared Responsibility

Develop a positive attitude toward learning.

Develop skills in selecting personal learning goals.

Develop skills in coping with and accepting continuing change.

Develop skill in making decisions with purpose.

Develop the ability to plan and organize the environment in order to realize one's goals.

Develop a willingness to accept responsibility for and the consequences for one's own decisions.

7. **Citizenship**

Primary Responsibility

Develop knowledge of the basic workings of the government.

Develop skill in democratic action in large and small groups.

Shared Responsibility

Develop a sense of historical perspective.

Develop a commitment to the values of liberty, government, and responsibility for the welfare of all.

Develop an attitude of inquiry in order to examine societal values.

Develop the ability to think productively about the improvement of society.

Develop a willingness to participate in the political life of the nation and community.

Supportive Responsibility

Develop a commitment to the fulfillment of humanitarian ideas everywhere.

Develop a commitment to involve oneself in resolving social issues.

8. **Creativity and aesthetic perception:**

Shared Responsibility

Develop the ability to motivate oneself, to deal with new problems in original ways.

Develop the ability to be sensitive to problems and tolerant of new ideas.

Develop the ability to be flexible, to redefine skills, and to see an object from different points of view.

[Develop the ability to be creative and appreciate creativity.]

Develop the ability to understand creative contribution of others and to evaluate them.

Develop the ability to communicate through creative work in an active way (as a creator) or a perceptive way (as a consumer).

Supportive Responsibility

Develop the commitment to enrich cultural and social life.

9. **Self-concept:**

Shared Responsibility

Develop the ability to search for meaning in one's activities.

Develop the self-confidence needed for confronting one's self.

Develop the ability to live with one's limitations and strengths.

Develop both general knowledge and interest in other human beings as a means of knowing oneself.

Develop a knowledge of one's own body and a positive attitude toward one's own physical appearance.

Supportive Responsibility

Develop an internal framework by which an individual can organize his concept of "self".

10. **Emotional and physical well-being:**

Shared Responsibility

Develop the willingness to receive new impressions and to expand affective sensitivity.

Develop the competence and skills for continuous adjustment and emotional stability.

Develop the ability to control or release emotions [constructively].

Develop the ability to use leisure time effectively.

Develop positive attitudes and habits toward health and physical fitness.

Develop physical fitness and psychomotor skills.

11. **Moral and ethical character:**

Shared Responsibility

Develop the ability to utilize values in determining choices.

Supportive Responsibility

Develop the judgment to evaluate events and phenomena as good or evil.

Develop a commitment to truth and values. Develop moral integrity.

Develop an understanding of the necessity for moral conduct.

Develop a desire to strengthen the moral fabric of society.

12. **Self-realization.**

The goal of self-realization was regarded as one in which schools have a shared responsibility. Actually, self-realization of the individual would be the outcome if reasonable progress has been made toward achieving the other eleven goals. The person doing so would have maximized his or her potential in acquiring basic skills, in intellectual development, in social and affective learning, enabling the individual to assume adult responsibilities, enter the work force or pursue additional education.

A major concern in a multi-cultural society is that students of differing cultures will have opportunities to develop an understanding of and appreciation for their cultures of origin. There are both ideal and practical reasons for such a view. As for the ideal, respect for the worth and dignity of individuals suggests that their values and beliefs be accepted, and that they have a right to maintain cultural values and practices. The practical motivation for accommodating cultural differences is threefold. First, by coming to understand one's culture of origin a positive identity is acquired, leading to the formation of a positive self-concept, which enables one to approach new experiences (including schooling) with confidence. Second, through exposure to differing cultures, members of the dominant culture are encouraged to examine their own values and beliefs, the result being either a greater understanding of why certain values are held or a modification of values. Third, the development of understanding of differing cultures by students who are members of the dominant culture (whatever the dominant culture may be in a given location) leads to understanding, which in turn can lead to acceptance and more harmonious relationships among differing groups.

Alaska Natives represent the largest culturally different group in the state, if one were to consider all Caucasians as a distinct group comprising a dominant culture. However, as mentioned above, in many parts of the state, Native people represent the dominant culture in the community or region. They have the right to insist that schooling take into account the culture of origin of students. At the same time, as a result of the Alaska Native Land Claims Settlement Act, with the establishment of village and regional corporations, there is a need for Native students to develop the skills, knowledge, and understandings that will enable them to participate in a broader spectrum in order to retain and enhance their economic position as well as protect subsistence aspects of their culture.

The goals of education as presented above, if met to a reasonable degree, would enable all students regardless of culture of origin to retain cultural identity and to enter the broader society as fully functioning citizens. Of course, meeting the goals is a shared responsibility of all components of that broad society.

Perhaps particular mention should be made of the goal of enculturation. The older literature regarding philosophy of education frequently contained the word acculturation. Acculturation is a process which has been defined as that of modifying one culture by contact with another culture. In the case of cultural minorities, it would be a process of imposing the dominant culture to a large degree on the minority group. Enculturation, however, means culturation from within. Or put another way, it is the process of starting with one's culture of origin. If modification to one's values acquired through enculturation does later occur, the change is based upon free choice rather than ignorance.

The subgoals associated with the main goal of enculturation stress a bicultural or multicultural approach to education. They stress the plural — i.e., heritages, traditions, ideas, norms, values, standards, groups, and cultures. They suggest a strong commitment to bicultural or multicultural education, with schools accepting a shared responsibility for progress toward the goal.

It would be difficult to place too much emphasis on the point that goals of education are the responsibility of the total society and not just the school. The school has a responsibility to provide schooling. Its responsibilities can be viewed as being: 1) primary, in which the school provides instruction and provides leadership in effecting positive relationships with parents, groups, and the community; 2) shared, in which the school has partial responsibility for instruction and for modeling or encouraging development of behaviors and attitudes; and 3) supportive, in which the school supports the efforts of individuals and groups within the community.

THE CURRICULUM

The term curriculum is used as an inclusive term denoting all of the courses of study in a school. If a school has more than one course of study — i.e., a high school having general, vocational and college preparatory programs — it may be said that the school has several curricula. For the purposes of this presentation, the term curriculum will be used to include all instructional offerings.

Schools in Alaska are found with a variety of organizational patterns. Some elementary schools have preschool programs for the general population, under five years of age , as opposed to merely providing preschool for handicapped children. Nearly all elementary schools have kindergarten programs for five year old children. Generally, districts organize instruction along the lines of one of the grade patterns as follows:

Elementary	*Junior High or Middle School*	*High School*
K-4	5-8	9-12
K-5	6-8	9-12
K-6	7-8	9-12
K-6	7-9	10-12
K-8		9-12
K-12 (combined)		

In some instances, rural schools are organized as K-9 or K-10, with students then attending a boarding program for completion of high school.

For the purposes of discussion of school curriculum, grades kindergarten through six will be regarded as elementary grades, grades seven and eight may be regarded as either elementary or secondary, and grades nine through twelve as secondary.

The Task Force's consideration of preschool did not result in either a consensus or a majority view regarding the providing of such a program as part of the elementary program. While it is recognized that handicapped preschoolers are provided schooling as required by law, there was the feeling that, although preschool experiences may be beneficial and that some communities may opt to provide such programs for all students or some students, there was some sentiment to the effect that general preschool programs should not be offered by public schools. Rather, it was felt that schools should be supportive of the efforts of other agencies (public and private) to provide preschool programs, and, if there is a local desire for such programs, to provide leadership in encouraging such agencies as may exist to develop programs. The Task Force noted that in some locations Headstart programs are operated, and that village councils or village corporations support preschool programs through such activities as making facilities available. Also noted was that agencies frequently provide materials for use in preschool programs.

Elementary Curriculum

In considering curricular offerings at the elementary level the Task Force regarded them according to categories as follows:

1. **Required** — *those skills or content areas to be requirements for all students in all schools.*

2. **Local Option** — *wherein local communities determine whether or not to include a content or skill area in the curriculum and whether to designate the offering as a required or an elective.*

The judgments of the Task Force regarding elementary curriculum, based upon the categories presented above, were:

Required
Art
Health
Language Arts
- *Handwriting*
- *Listening*
- *Speaking*
- *Spelling*
- *Usage (grammar, capitalization, punctuation)*
- *Writing (composition)*

Mathematics
Music (general)
Physical Education
Reading
Science
Social Studies
- *Geography*
- *History*

Local Option
Foreign Language
Instrumental Music
Native Culture
Native Language

Kindergarten was regarded by the Task Force as a program to be offered by all elementary schools, with attendance being optional.

Ethnic studies were viewed by the Task Force as an important component of elementary curriculum that should be integrated into all content areas.

Grades Seven and Eight

The Task Force utilized the same categories of Required and Local Option in considering offerings for grades seven and eight. Offerings were assigned to the categories as follows:

Required
Health
Language Arts
- *Composition*
- *Literature*
- *Speech*

Mathematics
Physical Education
Reading
Science
Social Studies
- *Geography*
- *Government*
- *History*

Local Option
Art
Foreign Language
Industrial Arts (woods, metals, et cetera)
Home Economics or Home Science (foods, clothing, et cetera)
Music
- *Instrumental*
- *Vocal*

Native Culture
Native Language

Ethnic studies were viewed as a content area that should be integrated into all aspects of the curriculum for grades seven and eight.

Secondary — Grades Nine through Twelve

Offerings for grades nine through twelve were also considered by the Task Force, again using the categories of Required and Local Option, plus a third category entitled Elective. The Elective category would include those course offerings available to all students in all schools unless local circumstances such as lack of space or limited enrollment preclude their being offered.

The judgments of the Task Force regarding offerings for grades nine through twelve were:

Required
Health
Language Arts
- *Composition*
- *Literature*
- *Speech*

Mathematics (General)
Physical Education
Science (General)
Social Studies
- *U.S. History*
- *U.S. Government*
- *Alaska History*
- *Alaska Government*
- *World History*

Electives
Art
Business Education (typing, law, bookkeeping, data processing, office machines, shorthand, personal finance)
Drama
Foreign Language
Home Economics or Home Science (foods and nutrition, family relations, clothing and textiles, child development)
Human Relations
Industrial Arts (woods, metals, small engines, transportation)
Language Arts (creative writing, developmental reading, journalism)
Mathematics (consumer, algebra, geometry, computer science, advanced algebra, trigonometry, mathematics analysis, probability and statistics, analytical geometry, calculus)
Music (instrumental, vocal)
Reading (developmental)
Science (earth, physical, biology, chemistry, physics, geology)
Social Studies (Native history, economics, anthropology, ethnic studies, psychology, sociology, contemporary problems, international relations)

Local Option
Driver Education
Native Culture
Native Language
Native Literature

Secondary electives have been presented under broad headings — i.e., industrial arts, music, et cetera. Local circumstances such as enrollment, facilities, the local economy, continued staff expertise, local interest, and (in some instances) the availability of computer software will determine the range of offerings in each broad area. Also, students taking electives in mathematics and science would likely satisfy requirements for general mathematics and general science, respectively.

CONDITIONS AND PRACTICES NECESSARY FOR EFFECTIVE SCHOOLING

In considering what is necessary for effective schooling — i.e., instruction — to take place (and achievement to result), the question can be approached from several ways. First, it is possible to rely to some degree upon experience, provided that one is truly open to experiences and has had a variety of them. Second, general research and theory regarding both human growth and development, and learning provide some clues. Third, it is appropriate to draw upon empirical data — research findings — to determine specific practices contributing to effective schooling.

Another approach to looking at effectiveness is to consider it from the perspective of general conditions (experiences, broad-based research and theory) and research-based practices. General conditions may further be divided into primary conditions and indirect conditions. Primary conditions are those having a direct impact upon the day-to-day learning of students. Indirect or supportive conditions would be those which impact effective schooling in a broad general sense, but over which the school system has either limited or no control. Research-based practices would, of course, be those practices identified through specific reviews of research literature.

The Task Force identified both primary and indirect conditions, as well as a substantial number of research-validated practices.

Primary Conditions

Primary conditions are those that have a direct and positive impact upon the day-to-day learning of most students. The following are primary conditions regarded by the Task Force as being essential to effective schooling:

1. *There is a warm, acceptant climate in the school and the classroom in which students are valued and respected.*

   Rationale. Being respected and regarded as having value, as well as feeling that one is a part of the classroom and school groups, enables the student to approach learning with a positive feeling. This statement should not be taken to mean that there is an absence of expectations or an absence of standards of behavior. (See primary conditions two and seventeen.)

2. *Students are regarded as being able to achieve and to learn, and they receive positive encouragement to do so. Each student is challenged and expected to develop to the fullest of his or her capacity.*

   Rationale. Students perform at a higher rate when they are regarded as being capable and when they receive encouragement. However, it is important to provide learning tasks that are regarded by the student as challenging. If the task is too easy, there is little satisfaction to be gained; if the task is too difficult, the student is likely to be discouraged and give up. Determining whether a specific task for a student will be challenging, too easy or too difficult is an individual matter; it is not the same for every student.

3. *Feedback to students is prompt as a means of reinforcing desired behaviors and as a means of minimizing student errors. The student is rewarded for good behavior, serious classroom effort, and achievement.*

Rationale. Reinforcement of desired behaviors — providing something positive such as praise, et cetera — will strengthen the behaviors until such behaviors become a habit. Positive rewards such as praise or time to do pleasant tasks should be given as soon after the desired behavior (such as having completed an assignment) occurs as possible.

4. *Skills learned in one subject are applied in other subject areas. Spelling, for example, is incorporated into other work; mathematics is used in science.*

Rationale. Learning in one subject is strengthened if opportunities are provided for frequent use in other areas of study. Also, students have the opportunity of discovering the importance of what they have learned by being able to put the learning to use.

5. *Formal parent-teacher conferences are scheduled, and sufficient time is provided for the conferences.*

Rationale. The school has a responsibility to provide schooling — i.e., instruction. Parents also have responsibilities regarding the total education of their children. Parent-teacher conferences make it possible for the parent and the teacher to work together, with the parent learning what the school is providing in instruction and the teacher having the opportunity to learn what may be of concern to the parent. To work well, parent-teacher conferences must be planned, with adequate time made available so that parents are not rushed.

6. *There is a minimum of student waiting time between the completion of one task and the beginning of the next.*

Rationale. Instructional time is valuable. If students are to learn to the maximum extent possible, time should not be wasted.

7. *Understanding and respect for various cultures are demonstrated by students and educators.*

Rationale. Students do and will continue to live in a multicultural society. If they are to live in harmony with one another, then developing understanding of and respect for various cultures is essential.

8. *Instruction contains a strong emphasis on applying knowledge to real life problems.*

Rationale. As children mature they become more and more concerned with the question of relevance of what is learned. Thus, it is important that students see some use for acquired skills and content. In addition, putting skills and content to use in problem solving activities both reinforces learning and enables students to experience applying what is learned.

9. *The content of instruction is well defined and balanced on a grade by grade or year by year basis.*

Rationale. For effective instruction to occur, it is necessary that what is to be taught at each grade level be adequately specified. This is necessary for several reasons. First, different learning tasks require differing levels of maturity. Second, some learning requires prior learning, such as is the case with physics, which requires a solid base in mathematics. Third, it is important to avoid duplication, with resulting waste of instructional time.

10. *Instruction is based upon information in the student record system, which contains complete records identifying portions of the curriculum which each student has mastered.*

Rationale. Students learn at different rates. Instruction should be directed toward the student's current needs in order to avoid having the student repeat what has been learned, or to avoid having the student attempt material for which he or she has insufficient prior learning.

11. *There is a positive system of staff evaluation in which it is assumed that teachers are proficient when employed and that even the best teacher can improve. Emphasis is upon continuous professional growth and improvement of instruction.*

Rationale. Teachers are the key to effective instruction; other educators serve to support the efforts of teachers. All educators, regardless of current levels of effectiveness, have the potential to improve. An effective system of staff evaluation makes it possible to identify both strengths and areas needing improvement. Plans for improving performance may then be developed and put into effect. Strengths — exceptional performance — should be recognized.

12. *Staff inservice training is directly related to assisting teachers and other staff in providing for effective schooling.*

Rationale. Staff inservice is concerned with developing staff expertise with effective schooling practices as opposed to using such time for housekeeping or procedural activities.

13. *The school staff makes a determined effort to communicate effectively with parents or guardians and utilizes parent and community resources in the instructional program.*

Rationale. Public schools are operated for the benefit of the public. Parents and other citizens have a right to know what schools are and are not doing. Use of parents and other community resource persons makes it possible to bring additional expertise into the school and also lets students know that education is a shared responsibility with parents and others.

14. *Strengths and weaknesses of the school are determined and reported to the community.*

Rationale. The public has a right to know what the school is doing well and not so well. The means to overcome weaknesses can be found if weaknesses are recognized.

15. *Facilities and staff are provided which support the curriculum and school programs.*

Rationale. Instructional space should be adequate so as to avoid overcrowding. Specialized space — such as for science, home economics, and industrial arts — should be available. Staff should be assigned according to professional preparation — i.e., teachers trained in science assigned to teach science — where practicable, and recognizing that small secondary schools will be staffed mainly by generalists.

16. *Instruction is well managed and school resources are effectively and efficiently administered.*

Rationale. Resources, both time and money, are valuable. Both should be well managed so as to avoid waste.

17. *Discipline is maintained and students are expected to assume responsibility for their own behavior. Disruptive student behavior is approached from the perspective of changing the behavior so that the student can stay in the school if possible.*

Rationale. Disruptive behavior prevents effective instruction. Students as they mature need to assume more and more responsibility for their own behavior. The goal, in dealing with behavior problems and in handling discipline should be on bringing about a change in behavior so that the student involved will be able to stay in school if possible.

18. *District policies are supportive of effective schooling.*

Rationale. Policies governing the operation of the district should be supportive of effective schooling. Examples of such policies would be those related to management practices, staff inservice, staff evaluation, and curriculum.

Indirect Conditions

Indirect conditions also have an effect regarding effective schooling — instruction and achievement — but they are factors over which the school has little or no control. Such conditions as identified by the Task Force are:

1. *Citizens regard schooling as being important and effective.*

Rationale. If citizens regard schooling as being important and making a difference, two things will happen. First, students will regard attendance at school and working hard as important. Second, teachers and other educators will likely be more productive because of feeling that their efforts are valued by the community.

2. *Appropriate research and assessment instruments are available for evaluating the effectiveness of schooling.*

Rationale. In order to determine effectiveness of instruction and in order to manage individual student learning, there is a need for appropriate research and assessment instruments. Specifically, there is a need for student assessment instruments for use with culturally-different student populations.

3. *There are teacher training programs which provide talented and effective teachers.*

Rationale. Teachers are the key to an effective instructional program.

4. *Adequate funding is provided to meet both general operating and capital needs.*

Rationale. Adequate funding must be available to provide necessary staff, supplies, and facilities.

5. *State Board of Education policies and regulations, as well as Department of Education practices, are supportive of effective schooling.*

Rationale. The State Board adopts regulations related to the operation of schools and the Department of Education, under the State Board, has responsibility for the general administration of the schools. It is imperative that regulations, policies, and procedures contribute to effective schooling.

6. *Students are reasonably healthy and have adequate nutrition.*

Rationale. Malnourished or hungry children have difficulty in gaining much from instruction. Hunger needs must be met before students can be expected to get the most possible from schooling.

7. Students see themselves as being loved and accepted by parents or guardians, peers and significant others apart from school.

Rationale. The feeling that one is loved or belongs will enable the student to readily develop positive interpersonal relationships at school. The sense of belonging that will develop at school will in turn enable the student to profit from instruction.

8. The parents or guardians of students encourage daily study and daily attendance.

Rationale. For schooling to be effective for the student, regular attendance and study on a regular basis are necessary.

9. Teachers and other staff are afforded the needed amenities, including housing, that enable them to provide effective instruction.

Rationale. Teachers are highly trained professionals. Effective teachers devote time far beyond the school day to school-related efforts. They should be able to expect adequate housing that does not require long hours to secure fuel and water. It is recognized that in many rural areas there will be an absence of conventional indoor plumbing and running water, and that housing may not be comparable to that found in urban areas. Yet, teachers need decent housing in order to maintain effectiveness.

RESEARCH-BASED PRACTICES

While some conditions contributing to effective schooling can be accepted at face value, others may be more complex or less readily accepted. For example, a belief that was accepted at one time by a substantial number of practitioners was that the principal need only concern herself or himself with organization and management of the facility and that teachers should be left alone to teach. Research would suggest otherwise.

There are some conditions or practices that may impact upon effective schooling where empirical evidence is needed to either support or refute the practice. In this particular instance a number of variables related to instruction were identified for possible study and six were chosen for the initial research review effort. Those six were: 1) parent participation, 2) computer assisted instruction, 3) class size, 4) the principal as instructional leader, 5) time factors, and 6) classroom organization and grouping. The Northwest Regional Educational Laboratory (NWREL) contracted to conduct the research reviews.

The research review design developed by NWREL involved a number of procedural steps, beginning with a search of both electronic and print sources of existing research studies associated with the variable being investigated. Hard copies were then obtained of all identified studies which were then evaluated for relevancy, adequacy of design, quality of the research, and findings. Drawing upon the completed evaluations of studies, hypotheses were formulated regarding specific practices, and decision displays were constructed in which studies supportive of, inconclusive regarding, negating, or irrelevant to the individual hypothesis were listed. Based upon the decision display and the preponderance of evidence a summary was then developed and recommendations formulated.

The research review design has a great deal of potential. First, it enables the researcher to pull together a large number of studies regarding a given variable and determine whether or not any conclusions can be drawn. Second, it provides a means of periodic updating as new studies are completed. Most importantly it avoids the pitfall of the common practice of quoting the findings of one or two pieces of research and ignoring the rest, or of only quoting the latest research.

As is the case with all research findings a word or two of caution is in order regarding the NWREL effort. The findings represent the best evidence to date; future findings through other research may alter the conclusions. It is only possible to say that the best evidence to date would lead one to be reasonably confident of the conclusions and recommendations. It is also possible to assume reasonable confidence that the findings have general applicability in Alaska. The final answer to this latter point will await implementation and subsequent field-based research efforts.

Drawing upon the research summaries and the recommendations prepared by NWREL, the Task Force developed a series of statements of effective practice that contribute to achievement. The report summaries prepared by NWREL are presented in the Appendix II.

Effective schooling practices as specified by the Task Force are presented below. No attempt was made to develop a hierarchy of effectiveness.

The Principal As Instructional Leader

A limited number of studies pertaining to the relationship of the principal as instructional leader and achievement were identified.[10] Yet all studies supported the hypothesis that there is a positive relationship between the two factors of instructional leadership and achievement. Therefore, it is reasonable to assume such a relationship until further research suggests otherwise. Practices specified are:

1. *There is a designated instructional leader — preferably the principal — for each level of organization. A variety of approaches is available for situations where either the current principal does not possess the skills and expertise to provide instructional leadership or where the school is not of sufficient size to justify a full time principal. (Levels of organization may include K-6, 7-12; K-8, 9-12; K-6, 7-8, 9-12; K-12; or other combinations.)*

    a. *In a large elementary or secondary school, responsibility for instructional leadership may be delegated to an assistant principal, provided that the principal effectively communicates to his/her staff support for the designated instructional leader.*

    b. *Grade level or departmental chairpersons may be delegated responsibility for instructional leadership, provided that released time from regular instructional duties is made available.*

    c. *In small schools, a principal-teacher or head teacher may be designated as instructional leader, provided that released time from regular instructional duties is made available.*

    d. *In rural areas having several small schools with principal-teachers or head teachers, an area principal may be employed to provide instructional leadership.*

2. *The school district has an ongoing well defined program of inservice for its instructional leaders in order that its instructional leaders maintain and improve skills.*

3. *Position descriptions for instructional leaders and principals emphasize:*

    a. *Frequent observation and/or participation in classroom instruction.*

    b. *Communicating clearly to staff what is expected as a facilitator of the instructional program.*

    c. *Making decisions about the instructional program.*

    d. *Coordinating the instructional program.*

    e. *Being actively involved in planning and evaluating the instructional program.*

    f. *Having and communicating high standards — expectations — for the instructional program.*

4. *Principal vacancies are filled by persons well-trained for the provision of instructional leadership, and preferably, with persons who have demonstrated effectiveness in providing instructional leadership.*

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[10]Kathleen Cotton and W.G. Savard, "The Principal as Instructional Leader" (Portland, Oregon: Audit and Evaluation Program, Northwest Regional Educational Laboratory, 1980), (Mimeographed.)

Class Size

Specific effective schooling practices include:[11]

1. *In assigning staff, priority is given to providing smaller classes for younger students, for gifted students and for those students who are academically needy — i.e., special education students, students with a primary language other than the language used for instruction, and children who are not achieving at expectancy level.*

2. *Where special needs students are enrolled in regular classes of normal class size, instructional aides are used to augment the work of the teacher.*

   a. *The aide assists the teacher in providing instruction.*

   b. *Class size is not increased over that of classes without aides and without special needs students.*

   c. *Aides have received preservice or inservice training regarding duties.*

Computer Assisted Instruction

The Task Force regarded computer assisted instruction (CAI) as a viable means of enhancing schooling with respect to the development of skills, and acquisition of content.[12] It was emphasized that CAI be regarded as an adjunct to regular instruction. Also, it was emphasized that computer software — instructional materials — be given a thorough review before being adopted for general use. Specific effective schooling practices include:

1. *The school augments regular instruction with computer assisted instruction in content and skill areas where adequate software is available.*

2. *The school district has a defined review and adoption process for the acquisition of software.*

3. *There is a program of orientation for parents regarding the use of computer assisted instruction.*

4. *Computer assisted instruction is particularly appropriate where enrollment in a given content or skill area is insufficient to warrant the providing of a teacher who is a specialist in the area of study, with the teacher having responsibility being a generalist, as is the case in many small rural schools.*

5. *Additional computer assisted instructional time is made available to low achieving students, and gifted students, where appropriate.*

Parent Participation

The NWREL research review regarding parent participation stressed the importance of preschool programs.[13] However, the Task Force held the view that preschools should be a matter of local option, with schools generally encouraging other agencies to provide such programs.

While research studies did not bear upon the effects of participation by parents of secondary students relative to achievement, Task Force members felt that such practice should be encouraged.

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[11] Kathleen Cotton and W.G. Savard, "Class Size" (Portland, Oregon: Audit and Evaluation Program, Northwest Regional Educational Laboratory, 1980) (Mimeographed.)

[12] P. Rapaport and W.G. Savard, "Computer-Assisted Instruction" (Portland, Oregon: Audit and Evaluation Program, Northwest Regional Educational Laboratory 1980), (Mimeographed.)

[13] Kathleen Cotton and W.G. Savard, "Parent Participation" (Portland, Oregon: Audit and Evaluation Program, Northwest Regional Educational Laboratory, 1980), (Mimeographed.)

Specific effective schooling practices related to parent participation include:

1. *The school district has an organized program for communicating with parents (on a regular basis), information which will assist parents in understanding the goals of the school and specific instructional practices related to goal attainment. Such information services may take several forms, depending on local circumstances, including:*

   a. *Information flyers and newsletters. In some locations, printed matter may be provided in English only; in other locations it will be appropriate to have the material presented in both English and another language.*

   b. *Regularly scheduled meetings of parents such as Parent-Teacher Association meetings, School Advisory Committee meetings, or general parent-community meetings. If parents have a primary language other than English, then an interpreter should be present.*

   c. *Scheduled parent-teacher conferences with a system developed for grades K-12 to meet local circumstances and containing strategies appropriate to differing grade levels, and with the further provision that the system for parent-teacher conferences not interfere with the regular 180 days of instruction for each student.*

2. *Where preschool programs are provided, cognitive development is to be emphasized as opposed to a play-oriented program. Such a program would have a strong component of parent participation in the classroom, and a component to train parents to reinforce school learnings of children at home.*

3. *The school actively seeks to involve parents in classrooms to assist individual students. In some locales parent volunteers may be recruited; in other situations pay may be more appropriate to local custom.*

4. *The school makes extensive use of parents as resource persons in the classroom.*

5. *The school staff assigns homework on a regular basis as a means of extending instruction and as a means of providing parents an opportunity to tutor or assist children at home, when parents are monolingual in the same language as is used for instruction (or bilingual with command of the language used for instruction).*

   a. *The amount and frequency of homework is related to the subject, age, and grade of the child.*

   b. *Provision is made to acquaint parents with the subject matter being studied and with effective means of assisting their children with homework.*

6. *The school makes provision of space for children to work on homework after school hours in locations where either study space is limited at home or parents are monolingual in a language other than that used for instruction. In this instance, parents who have fluency in the language of instruction should be recruited to assist students. Parents who do not have facility with the language of instruction could also be used to provide general supervision.*

7. *In settings where students are bussed, schedules are arranged to accommodate students using school facilities for after school study and other activities.*

Time Factors

Time factors were considered from three perspectives.[14] First, allocated time (time scheduled for a specific area such as reading) was addressed because, unless time is made available, little or no learning will occur. Second, time on task was looked at as a factor contributing to achievement because allocated time alone does not suffice; learning activity should be occurring within the allocated time. Finally, academic learning time was considered — the segments within allocated time during which instructional interaction between students and the teacher is taking place. This latter category of time appeared to provide the greatest positive impact upon student achievement.

Taking into account the factors of allocated time, time on task, and academic learning time, the Task Force identified effective schooling practices as follows:

1. *Content and skill areas comprising the curriculum have been considered in terms of priority, and instructional time allocations for each content and skill area have been designated.*

2. *Housekeeping matters — collecting lunch money, et cetera — are organized in such a way that they infringe upon instructional time as little as possible.*

3. *Additional instructional time (which is interactive in nature), with the teacher actively teaching, is allocated for low ability, low achieving students.*

4. *The certificated staff evaluation system used to evaluate teacher performance has as one of its focuses the assessment of:*

    a. *Use of positive teacher feedback.*

    b. *Use of interactive instruction.*

    c. *The provision for occasional student selection of learning activities.*

    d. *The degree to which student diagnostic data and academic history are used in planning instruction.*

    e. *The degree to which a wide range of instructional materials are used.*

5. *Student activities are scheduled at times other than those set aside for academic instruction, where possible.*

6. *Instructional time is regarded as valuable: schedules for assisting students with special needs are arranged so that instructional time devoted to basic skills and required courses is disrupted as little as possible.*

    a. *Village schools may wish to utilize a flexible-modular schedule in order to accommodate visits by specialists such as speech therapists without disrupting basic academic learning time.*

    b. *In scheduling services of itinerants to two or more schools, building programs of all schools concerned should be coordinated with the itinerant services.*

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[14] Kathleen Cotton and W.G. Savard, "Time Factors in Learning" (Portland, Oregon: Audit and Evaluation Program, Northwest Regional Educational Laboratory, 1981), (Mimeographed.)

Classroom Organization and Grouping

The area of investigation by NWREL pertaining to classroom organization and grouping as an initial descriptor, yielded two reports.[15, 16] The first of these was entitled "Instructional Grouping; Group Size," while the second was labeled, "Instructional Grouping: Ability Grouping." Task Force statements of effective schooling based on the above-mentioned studies are:

1. *In districts operating elementary schools with more than one class group per grade, or secondary schools with more than one section per subject, there should be a policy statement regarding ability grouping.*

    a. *If homogeneous grouping is specified;*

        (1) Students should not be assigned to groups on the basis of a single measure — i.e., one test score — but on the basis of multiple measures, subject to frequent review.

        (2) Care should be taken to avoid confusing cultural differences with low ability.

        (3) Care should be exercised to lessen the impact of stigma associated with low ability group membership, or the special status of membership in the top ability group.

        (4) Provision should be made for heterogeneous grouping for some learning activities during the school day, if possible.

    b. *If heterogeneous grouping is specified, instructional materials of varying levels of difficulty should be available in each classroom.*

2. *In primary grade classrooms, small group instruction should be utilized as a means of providing greater pupil-teacher interaction, more immediate feedback to students, and increased time on task. The instruction should be highly structured and systematic.*

Summary

In considering effective schooling the Task Force identified general conditions (both primary and indirect) and research-based practices which would seem to have positive effects on student achievement. In doing so, the Task Force drew upon experience, general research and theory regarding learning and human development, and upon specific reviews of research as compiled by the Northwest Regional Educational Laboratory. Every effort has been made to approach the task from a perspective of reasonableness and applicability to a variety of settings in Alaska. Time will be the determinant as to the efficacy of the practices in those varied locations.

Research related to variables investigated will continue to accumulate. Thus, there will be a need for periodic updating of research reviews to determine whether or not the practices based upon those reviews will continue to have merit. Also, the applicability of such practices to a variety of settings should be validated through on-site evaluation.

Undoubtedly, other variables could well be investigated. Many added areas of concern could well be addressed through the process used in investigating the variables mentioned above.

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[15] Kathleen Cotton and W.G. Savard, "Instructional Grouping: Group Size" (Portland, Oregon: Audit and Evaluation Program, Northwest Regional Educational Laboratory, 1981), (Mimeographed.)

[16] Kathleen Cotton and W.G. Savard, "Instructional Grouping: Ability Grouping" (Portland, Oregon: Audit and Evaluation Program, Northwest Regional Educational Laboratory, 1981), (Mimeographed.)

RECOMMENDATIONS

The Task Force was charged with several responsibilities. First, it was expected that statements defining the responsibilities of schools be developed. Second, the Task Force was to identify practices having general applicability to Alaska Schools which contribute to effective schooling. Third, there was the expectation that recommendations for implementing practices would be developed.

Responsibility of Schools

It is the position of the Task Force that schools are responsible for schooling — the providing of instruction — and that schools and their personnel are but one segment of society concerned with education. Other segments having responsibility include parents and other family members, the community as a whole, churches, agencies, and the media. Schools provide instruction in a structured setting. Because the school does not and should not control all learning experiences, the responsibilities of the public school should be limited to that over which it has direct control.

Responsibilities of schools may be further defined as being either primary, where the school assumes major responsibility (while its efforts are supported by other segments of society), shared (in which case the school works cooperatively with other societal components) or supportive (in which the school supports the efforts of others).

Recommendations

Specific Task Force recommendations regarding responsibilities of public schools are as follows:

1. *That the State Board of Education incorporate into a statement of policy the concepts that:*

   a. *Schools are responsible for providing schooling — instruction — but share responsibility with other segments of society.*

   b. *Responsibilities of schools may be regarded as being either primary, shared, or supportive responsibilities.*

   c. *While schools cannot guarantee learning, they are responsible for providing instruction and school staffs are expected to make every effort to insure that learning is likely to occur.*

   d. *The student, ultimately, must assume responsibility for his or her learning.*

2. *That the State Board of Education adopt by regulation (or recommend the adoption of statute if needed) the requirement that all school districts offer kindergarten programs in all locations where elementary schools are operated, with the provision that kindergarten attendance be optional.*

3. *That the State Board of Education adopt the goals of education, specified by the Task Force, as goals of education for Alaska, with the provision that levels of responsibility specified for schools relative to meeting the goals be regarded as minimum levels of responsibility for the public schools.*

4. *That the State Board of Education revise the Course of Study for Elementary Schools in Alaska as referenced in 4 AAC 06.070, taking into account Task Force recommendations regarding curriculum for grades one through six as well as Task Force recommendations regarding curriculum for grades seven and eight.*

5. *That the State Board of Education review requirements for grades nine through twelve, taking into consideration Task Force recommendations regarding curriculum for those grades and review current high school graduation requirements as referenced in 4 AAC 06.075, with particular attention being addressed to computer literacy and other technological competency.*

Effective Schooling Practices

The Task Force, in meeting the second of its three assigned tasks, developed a series of statements of conditions (both primary and indirect) essential to effective schooling, as well as statements of effective schooling practice based upon research reviews.

Primary conditions are those that have a direct and positive impact on the day-to-day learning of most students. The statements of primary conditions are based on the large body of research and theory describing human growth and development and learning.

Indirect conditions are those over which the individual school has either limited or no control, but which also has impact upon the learning of most students. They have been developed from the perspective of experience, as well as from the standpoint of general research and theory.

Research-based effective schooling practices were developed on the basis of recommendations contained in research reviews prepared by the Northwest Regional Educational Laboratory for the Alaska Department of Education. A strong attempt was made to develop statements of effective schooling practice that would have general applicability throughout Alaska.

Recommendations

Specific Task Force recommendations regarding conditions for effective schooling and specific effective schooling practices are:

1. *That the State Board of Education adopt the statements of primary conditions and the research-based statements of effective schooling practice as developed by the Task Force as a combined set of statements of effective schooling practices to be implemented by public schools in the State of Alaska. This could be accomplished by directing the Department of Education staff to prepare a document entitled "Effective Schooling Practices for Alaska Public Schools," which could then be referenced in regulation, along with a specification of timelines for implementation.*

2. *That the State Board of Education and local school districts communicate to the general public that schools will be limited in effectiveness if the indirect conditions are unmet.*

3. *That the State Board of Education seriously consider an extended school year as a method of providing sufficient time for the purpose of parent-teacher conferences. The use of substitute teachers or teacher in-service days are viewed as options which are less desirable than the extended year. In any case the primary concern is that the selected procedure result in an unhurried, planned, and productive session between the parents and the teachers or other staff members.*

Monitoring and Reporting

One of the most difficult aspects of the work of the Task Force has been to develop recommendations regarding monitoring and reporting with respect to effective practices. There are a number of issues involved including local versus state control, having the work of the Task Force become a meaningless exercise versus imposing a rigid system, and providing the means for some districts to enhance effectiveness versus destroying effectiveness where it now exists. In addition, there are concerns regarding the imposition of a burdensome load of paperwork and the adding of people to the bureaucracy for the purpose of detailed monitoring.

As a part of the process of completing its work, the Task Force held a Statewide Conference on Effective Schooling in Anchorage on April 23-24, 1981. Districts were invited to send two representatives each to the conference.

At the conference rather conflicting views were expressed by participants regarding the role of the state with respect to proposed effective practices. One view was that statements of practice should be broad, allowing districts a great deal of latitude, while an opposing view was that statements should be specific so that district staffs would know what to expect. A situation has existed to date in which local districts have had a great deal of latitude regarding instructional programs while at the same time we have moved to nearly total state funding of basic need. There is a need to keep decision making close to the people being affected by the decisions, yet it does not seem wise to issue a blank check to local districts with no strings at all.

The Task Force has been serious in regard to its charge to identify effective practices. A concerted effort has been made to base recommended practices on current research, on broad-based research in the area of learning, and on common-sense. It has avoided, to a considerable degree, a wish-list approach. It has avoided specifying practices in too much detail that would eliminate flexible approaches to implementing them. Yet a comment frequently heard from those in the field has been, "Is this another meaningless exercise?"

The concern regarding the work of the Task Force is to promote the best possible learning situation for students. It is assumed that this is a universal concern. Further, the measure most commonly used as an indication of effectiveness is that of student achievement.

Whenever we examine achievement data, whether for a class of students, for a school, for a district, or for all districts in the state we are primarily concerned with two measures — the mean score (average) and the variance. Variance is a term used to describe the spread of scores both above and below the mean or average. While our overall concern is that every individual student, every school, and every district to do the best job possible we usually become most concerned regarding those students, schools, and districts with scores below the current mean or average. In short, we want to bring them up to speed.

It has been determined that in the learning of specific skills and factual data that it is possible to enhance achievement by using the approach of mastery learning, wherein instructional objectives are clearly defined — and instructional activities are tied directly to objectives. It has been demonstrated that direct instruction — highly structured learning activity — is effective with certain groups of students. These approaches will assist students with low achievement to move closer to the current mean or average. Yet, a highly structured system of instruction applied to everyone may in fact impede the progress of those students achieving at a level above the current mean or average. The result is that, while variance (or the spread of scores from the mean) is reduced, there is a reduction in both directions. Low achievers may move closer to the mean, but high achievers may well do likewise.

The example presented above regarding achievement may well apply to the operation of schools. If effective schooling practices are too narrow and a rigid system results, variance among districts will be reduced, but the limiting of creativity and the limiting of schools in their ability to adapt to local circumstances will cause a reduction in variance from both above and below the mean or average.

An additional concern regarding reporting requirements is that they not be too expensive and too highly structured. The emphasis should be on requiring enough detail to provide a picture of what is or isn't happening, but avoiding an extremely time consuming process that will detract from the effectiveness of instruction.

With respect to monitoring, there are several approaches possible. One procedure would be to stipulate audits on a regular basis, perhaps with one-third of the districts coming under scrutiny each year. A readily apparent disadvantage would be the large number of added people needed in the Department of Education to carry out such an effort.

Another approach to monitoring would be "key-point" monitoring wherein certain indicators of practice are identified which generally suggest the presence or absence of a given practice. Such monitoring could probably be accomplished by existing department staff. Also, key point monitoring could be augmented by detailed audits of one or two districts per year, randomly selected.

Recommendations

1. *That the State Board of Education and the Department of Education establish a committee of involved parties (lay and professional) to design a monitoring and reporting system pertaining to effective schooling practices.*

2. *That the committee consider local communities (individual attendance areas) as the primary audience for reporting of implementation of effective schooling practices. Where present, the local advisory school board would receive the report. Overall district reports would be submitted to district boards.*

Further provision should be made for district reports to be submitted to the Department of Education for incorporation into annual state reports to be made available to the State Board, the Office of the Governor, the Legislature and the public at large.

3. *That the Committee include the development of a key-point monitoring system in its design, supplemented by the provision of random audits on the information submitted by districts.*

4. *That the State Board of Education revise Chapter 19 of the Alaska Administrative Code, pertaining to Evaluation of Professional Employees, and particularly 4 AAC 19.020, Scope of Evaluation. Such a revision is essential in order that effective schooling practices be covered in the scope of evaluation. It is envisioned that a primary source of data regarding implementation of effective practices will be provided by local school and district compilations from professional staff evaluation instruments. While it is not important that the exact process of evaluation be followed in every district, it is important that every district be measuring the same factors of performance.*

Inservice

Adopting effective schooling practices and requiring that districts implement them would be inappropriate without providing assistance in retraining professional staff through inservice activities. Since the inception of the Effective Schooling Project, consideration has been given to future inservice efforts.

The focus of the Task Force in discharging its tasks has been the individual school unit. With this focus in mind and also in reviewing the statements of effective schooling practice it becomes apparent that the key personnel in implementing effective schooling practices are teachers and principals.

The research review entitled, "The Principal as Instructional Leader,"[1] which led to the development of statements of effective schooling practice pertaining to the role of the principal would suggest that perhaps the central inservice effort be directed toward building principals. Also, as principals are responsible for evaluation of teachers as a means of improving instruction, it is imperative that they be thoroughly familiar with classroom-based effective practices.

Because designating principals as instructional leaders will not automatically make it so, effective practices pertaining to the principal as instructional leader were written so that others such as assistant principals, departmental chairpersons or grade level chairpersons could be designated as instructional leaders. Yet, it would be most desirable that the principal be able to fill the role of instructional leader and initial inservice efforts should be directed toward that end.

Putting emphasis toward training principals as instructional leaders does not in any way negate the role of teachers, does not overlook the need for inservice for teachers, nor does it ignore what teachers can and do contribute toward effective schooling. Rather, it involves a strategy for initiating an inservice effort which will likely continue for many years to come.

Initial consideration of inservice efforts was focused upon teachers. At first, it was thought that perhaps the best strategy would be to provide training to one teacher per district with each trained teacher becoming a trainer of other teachers. The limitation of such an approach is that, although one teacher trainer in Pelican might have a considerable impact, one trained teacher in Anchorage could effect little change.

A second approach to inservice which was considered would be to provide training to teachers, with the number of teachers trained per district to be determined according to a formula based upon size of district.

As the role of the principal regarding instruction is a crucial one, as suggested by the review of research, it would seem appropriate to focus initial inservice efforts on that role, taking into account the strong possibility that not all current principals may have the potential for instructional leadership.

In addition to training principals or other designated instructional leaders, it would appear to be worthwhile to also provide inservice regarding effective schooling practices to the supervisors of principals. If principals are to implement effective schooling practices, then their supervisors should be cognizant of what is to be expected.

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[1] Kathleen Cotton and W.G. Savard, "The Principal as Instructional Leader."

Recommendations

Specific recommendations of the Task Force regarding inservice efforts are:

1. *That when the State Board of Education adopts the statements of effective schooling practices, the Department of Education (DOE) immediately initiate efforts with organizations representing personnel to receive inservice training and with the Statewide Professional Development Steering Committee in order to begin planning for the development of inservice components. It may be advisable for DOE employees to do some preliminary work in this regard prior to adoption.*

2. *That the State Board specify that major initial inservice efforts be provided for principals (or other designated instructional leaders) of the schools throughout the state, with supportive inservice to be provided to the supervisors of principals. Inservice topics should include:*
   a. *Effective supervision and staff evaluation.*
   b. *The process of instructional leadership.*
   c. *Classroom organization and grouping.*
   d. *Academic learning time.*
   e. *Computer Assisted Instruction.*
   f. *Communicating with parents.*
   g. *Involving parents.*
   h. *District suggested topics as approved by DOE.*

3. *That structured, detailed syllabi be developed by (or under the supervision of) DOE. It is imperative that inservice efforts be of excellent quality, with goals, objectives, and activities clearly defined. Whenever possible, electronic technology should be used as both a model and as a means of participants becoming familiar with equipment such as that for computer assisted instruction, teleconferencing and video graphics.*

4. *That a request for proposals to conduct inservice for principals and other instructional leaders be made, with the expectation of receiving proposals from university units, regional resource centers, districts, and other organizations. Preference regarding instructors should be for persons who have been effective instructional leaders.*

5. *That inservice for principals and other instructional leaders be conducted during summer, 1982, with plans developed to provide for implementation in each school in the state during the 1982-83 school year.*

6. *That DOE prepare (or have prepared) an implementation manual for use by principals and instructional leaders as an aid in training building staffs and implementing effective schooling practices.*

7. *That the principal of each school in the state be expected to develop and implement a plan of inservice during the 1982-83 school year, utilizing the inservice released time days, including the teaching staff in planning the inservice, and (where possible) drawing upon teacher expertise in effecting inservice.*

8. *That AS 14.03.030, School Term, be revised, with provision made for extending the school term beyond 180 days, with the added days used for inservice training. Such a change would also involve revision of statutes pertaining to school foundation support. The objective would be to provide the means of upgrading instructional staff competencies without undue loss of instructional time.*

9. *That DOE should consider assigning one or more staff members as support persons to assist local schools with implementation during the 1982-83 school year.*

10. *That a system of ongoing inservice regarding effective schooling practices be provided in order to meet needs, perhaps using the federal civil service model of short courses offered at various times in Anchorage, Juneau, and Fairbanks.*

Continuation of Effort

As part of the Task Force effort several studies were conducted by the Northwest Regional Educational Laboratory under contract with the Department of Education. These studies provided the research base from which to generate statements of effective practice.

The research findings provide the best indicators of effective practice at the present time. Future research may provide somewhat different indicators, resulting in modification of statements of effective practice.

Six major areas were investigated during the span of the current project. There are many additional factors, variables, or areas of concern which could be investigated, including:

1. *Administrative practices and policies*
2. *Attendance improvement*
3. *Diagnostic teaching*
4. *Education environment*
5. *Extracurricular activities*
6. *Individualized instruction*
7. *Inservice teacher education*
8. *Instructional development/leadership*
9. *Media selection/educational technology*
10. *Pupil personnel services*
11. *Teacher characteristics*
12. *Teacher evaluation*

Recommendations

Specific Task Force recommendations regarding continuation of effort are:

1. *That the State Board request additional funding for fiscal year 1983 and thereafter to provide for a continuing effort to review research both as a means of reviewing new research related to variables previously investigated, and as a means of examining additional variables.*

2. *That the State Board direct the Department of Education to initiate efforts to secure joint agreements with other states for continuation of activity to produce research reviews.*

3. *That the adoption of any added effective schooling practice be preceded by review by a designated group, with both professional and lay representatives.*

Evaluation and Refinement

One of the charges to the Task Force was to identify those practices of effective schooling based upon research which would appear to have general applicability to Alaska schools. As a result a number of variables have been investigated (through reviews of existing research), hypotheses generated, conclusions drawn, recommendations made, and practices specified. It would appear that the practices considered by the Task Force have general applicability.

There are some cautions to be observed, however. First, the research findings should not be regarded as absolutes; they represent the *best* indication at the present time, but are subject to modifications as a result of future research. Second, the findings are based upon national — i.e., lower forty-eight — research as opposed to Alaskan research. It would appear that the findings have general applicability — probably in at least ninety percent of cases — but there may be exceptions.

There will be a need for ongoing evaluation of the effect of the practices. The design team charged with developing specifications for monitoring and reporting could be given the added task of developing a system of evaluation. Key point monitoring could serve to identify areas of concern, as could selected audits. Initial evaluation efforts would focus upon process — those things being done and judgments as to how well they were being done. After a period of years, product measures such as achievement measures could be obtained. The process may well result in some future refinement of statements of effective schooling practice.

Recommendations

Specific recommendations of the Task Force regarding evaluation and refinement are:

1. *That the State Board direct that the committee on monitoring and reporting be given the added assignment of assisting in developing an evaluation and research system for determining the effect of effective schooling practices in a variety of settings.*

2. *That the State Board support requests for the funding of evaluation efforts regarding the efficacy of effective schooling practices.*

3. *That, subject to appropriations, the Department of Education issue requests for proposals pertaining to on-site research.*

4. *That the Department of Education apprise the State Board (on an annual basis) of any apparent problems associated with implementation of effective schooling practices, as evidenced by evaluation findings.*

A General Implementation Strategy

The Task Force at its inception in January, 1981, faced a major undertaking. Charged with defining responsibilities of schools, specifying effective schooling practices, and recommending implementation strategies, it has accomplished a substantial amount of work in a relatively short period of time. This has been possible, to a large degree, because of the excellent preliminary work undertaken by Department of Education (DOE) staff at the behest of the State Board of Education, and to a large degree also because of the explicit nature of Governor Hammond's Administrative Order establishing the Task Force.

In anticipation of possible favorable response to the Task Force report and its recommendations being accepted by the State Board of Education, DOE staff has prepared a flow chart for implementation of Task Force recommendations. The flow chart is presented in Appendix III, and provides a detailed view of the overall strategy necessary to implement Task Force recommendations.

An examination of the flow chart suggests that in order for inservice efforts to begin prior to the beginning of the 1982-83 school year, State Board action regarding the recommendations of the Task Force will be necessary by mid-September, 1981. Action at a later date will preclude inservice during summer, 1982, and preclude implementation of effective practices until the 1983-84 school year.

SUMMARY

At its inception, the Governor's Task Force on Effective Schooling faced what appeared to be a near insurmountable task of defining responsibilities of public schools in Alaska, of specifying effective schooling practices which would have general applicability to Alaskan students, and of recommending specific procedures for implementing effective schooling practices. These tasks have all been accomplished to some degree. There are some aspects of the work where Task Force members, either individually or collectively, would have preferred greater or less emphasis, would have preferred more or less detail, and so on. As with any cooperative venture, individual preferences are subsumed in arriving at group consensus, and in its deliberations the Task Force achieved consensus on many points.

Preparing a public document containing recommendations for the future course of public schools in Alaska is a sobering experience. On the one hand, the opportunity to influence public policy is stimulating and challenging. On the other hand is the realization that care must be exercised in order to insure that recommendations will have the desired effect — that of improving the public school experiences of Alaskan students. From another perspective is the realization that not all of one's fellow citizens will necessarily hold the same views regarding schooling.

Indeed, there will be criticisms of the work of the Task Force. To some observers it will seem that the recommendations call for too much state-level involvement in local operation of public schools. To others, it will appear that the recommendations are not strong enough — that the state should have even greater influence over local schools. Another criticism will be in regard to using national research as a foundation for developing research-based statements of effective schooling practices. A further criticism will likely be in regard to implementation timelines — namely that extensive pilot efforts should be conducted prior to adopting statements of effective practice.

There are bound to be philosophical differences over the question of state versus local control of public schools. Given the near total funding of basic need by the state it would appear that the citizens of the state, in the aggregate, are going to want assurances that their money is buying a quality product.

Those who would question reliance on research generated elsewhere would tend to assume that all students residing other than in Alaska are similar, and that all students residing in Alaska are similar, which is not the case. Differences in student characteristics are found within and across research groups, just as differences are found within Alaska. Thus, it is probably safe to say that generalizations from national research would probably provide as good an indication regarding effective practice as would generalizations from isolated studies conducted in Alaska (provided that studies pertaining to the variables investigated could be identified) as long as common sense prevails in specifying practices based upon research findings.

As to pilot efforts to test the efficacy of practices, such a practice is reasonable when the initiation of one practice in a given location is contemplated. Given the number of diverse situations in Alaska, and given the number of variables or factors involved, it would likely be possible to conduct pilot studies between now and 1990 in order to gather data for use in planning eventual implementation. In the meantime the public may grow increasingly weary of providing more and more money each year so that the business of the schools may continue as usual.

The Task Force has attempted to develop statements of practice based upon the evidence at hand, tempered its recommendations by judicious doses of common sense, and developed its recommendations in the interest of promoting quality schooling for Alaskan students.

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APPENDIXES

APPENDIX I

"Goals for Schooling in the U.S."[18]

1. Mastery of basic skills or fundamental processes
   - 1.1 Develop the ability to acquire ideas through reading and listening
   - 1.2 Develop the ability to communicate ideas through writing and speaking
   - 1.3 Develop the ability to understand and utilize mathematical concepts
   - 1.4 Develop the ability to utilize available sources of information
   - 1.5 Develop the ability to read, write, and handle basic arithemetical operations
2. Career education-vocational education
   - 2.1 Develop the ability to select an occupation that will be personally satisfying and suitable to one's skills and interests
   - 2.2 Develop salable skills and specialized knowledge that will prepare one to become economically independent
   - 2.3 Develop attitudes and habits (such as pride in good workmanship) that will make the worker a productive participant in economic life
   - 2.4 Develop positive attitudes toward work, including acceptance of the necessity of making a living and an appreciation of the social value and dignity of work
3. Intellectual development
   - 3.1 Develop the ability to think rationally; i.e., thinking and problem-solving skills, use of reasoning and the application of principles of logic, and skill in using different modes of inquiry
   - 3.2 Develop the ability to use and evaluate knowledge; i.e., critical and independent thinking that enables one to make judgments and decisions in a wide variety of life roles (e.g., citizen, consumer, worker, etc.) as well as in intellectual activities
   - 3.3 Accumulate a general fund of knowledge, including information and concepts in mathematics, literature, natural science, and social science
   - 3.4 Develop the ability to make use of knowledge sources, utilizing technology to gain access to needed information
   - 3.5 Develop positive attitudes toward intellectual activity, including intellectual curiosity and a desire for further learning

[18] Goodlad, pp. 46-52

4. Enculturation
   4.1 Develop insight into the values and characteristics of the civilization of which one is a member
   4.2 Develop awareness of one's cultural and historical heritages — the literary, aesthetic, and scientific traditions of the past — and familiarity with the ideas that have inspired and influenced mankind
   4.3 Develop understanding of the manner in which heritages and traditions of the past are operative today and influence the direction and values of society
   4.4 Acquire and accept the norms, values, standards, and traditions of the groups of which one is a member
   4.5 Examine the norms, values, standards, and traditions of the groups of which one is a member

5. Interpersonal relations
   5.1 Develop a knowledge of opposing value systems and their influence on the individual and society
   5.2 Develop an understanding of how members of a family function under different family patterns
   5.3 Develop skill in communicating effectively in groups
   5.4 Develop the ability to identify with and advance the goals and concerns of others
   5.5 Develop the ability to form productive and satisfying relations with others based on respect, trust, cooperation, consideration, and caring
   5.6 Develop an understanding of the factors that affect social behavior

6. Autonomy
   6.1 Develop a positive attitude toward learning
   6.2 Develop skill in selecting personal learning goals
   6.3 Develop skill in coping with and accepting continuing change
   6.4 Develop skill in making decisions with purpose
   6.5 Develop the ability to plan and organize the environment in order to realize one's goals
   6.6 Develop the willingness to accept responsibility for and the consequences of one's own decisions

7. Citizenship
   7.1 Develop a sense of historical perspective
   7.2 Develop knowledge of the basic workings of the government
   7.3 Develop a commitment to the values of liberty, government by consent of the governed, representational government, and responsibility for welfare of all
   7.4 Develop an attitude of inquiry in order to examine societal values
   7.5 Develop the ability to think productively about the improvement of society (refer to No. 3)
   7.6 Develop skill in democratic action in large and small groups (refer to No. 5)
   7.7 Develop a willingness to participate in the political life of the nation and community
   7.8 Develop a commitment to the fulfillment of humanitarian ideas everywhere
   7.9 Develop a commitment to involve oneself in resolving social issues

8. Creativity and aesthetic perception
   8.1 Develop the ability to motivate oneself, to deal with new problems in original ways
   8.2 Develop the ability to be sensitive to problems and tolerant of new ideas
   8.3 Develop the ability to be flexible, to redefine skills, and to see an object from different points of view
   8.4 Develop the ability to enjoy and be willing to experience the act of creation
   8.5 Develop the ability to understand creative contributions of others and to evaluate them
   8.6 Develop the ability to communicate through creative work in an active way (as a creator) or a perceptive way (as a consumer)
   8.7 Develop the commitment to enrich cultural and social life

9. Self-concept
   9.1 Develop the ability to search for meaning in one's activities
   9.2 Develop the self-confidence needed for confronting one's self
   9.3 Develop the ability to live with one's limitations and strengths
   9.4 Develop both general knowledge and interest in other human beings as a means of knowing oneself
   9.5 Develop an internal framework by which an individual can organize his concept of "self"
   9.6 Develop a knowledge of one's own body and a positive attitude toward one's own physical appearance

10. Emotional and physical well-being
   10.1 Develop the willingness to receive new impressions and to expand affective sensitivity
   10.2 Develop the competence and skills for continuous adjustment and emotional stability
   10.3 Develop the ability to control or release the emotions according to one's values
   10.4 Develop the ability to use leisure time effectively
   10.5 Develop positive attitudes and habits toward health and physical fitness
   10.6 Develop physical fitness and psychomotor skills

11. Moral and ethical character
   11.1 Develop the judgment to evaluate events and phenomena as good or evil
   11.2 Develop a commitment to truth and values
   11.3 Develop the ability to utilize values in determining choices
   11.4 Develop moral integrity
   11.5 Develop an understanding of the necessity for moral conduct
   11.6 Develop a desire to strengthen the moral fabric of society

APPENDIX II

RESEARCH REVIEW SUMMARIES

Topic: Class Size

Authors: K. Cotton/W.G. Savard
Date: December 12, 1980

Overview

The relationship between class size and educational outcomes is a controversial and much-investigated subject. Many educators, parents, students and others argue that small classes result in higher achievement and better teacher and student morale than do large classes. This contingent contends further that these superior outcomes justify the higher costs associated with operating small classes.

These views are countered by the arguments of other groups both within and outside the educational community. Some claim that smaller classes do not necessarily promote better learning and learning environments. Others argue that, even if smaller classes are best for maximally effective schooling, they are simply too expensive.

In both of these sizeable camps are people who speak from personal preference, others who argue from experience in educational settings, and still others who cite research findings in support of their point of view.

There is no doubt that operating small classes is more expensive than operating large classes. Before considering cost factors, however, it is important to ask what is known about the relative merits of small and large classes as regards their effects on achievement and other educational outcomes.

Considerable research effort has been devoted to studying the relationship between class size and: 1) academic achievement in various subjects and at various levels; 2) student behavior/attitudes; 3) teacher morale/satisfaction; 4) instructional methods; 5) classroom management and other variables. While many well-designed and carefully conducted studies have been published, an individual seeking to extract meaningful conclusions from the class size research confronts several problems. "Small classes" and "large classes" are not defined in a consistent way from study to study, (for example, "small" classes may range from three to twenty) which makes difficult the task of examining the studies in relation to one another. Some studies draw conclusions about the relationship between class size and achievement, for example, without examining the influence of other important variables on the outcomes noted. Some researchers draw conclusions about the effects of class size generally, even though data are drawn from only one grade level. These limitations notwithstanding, some patterns do emerge from the research on class size, and these are presented in the next sections of this paper.

Thirty-five documents on class size were examined. Fifteen of these were excluded, either because they were judged invalid or were not reports of research at all. Of the 20 valid studies which remained, 15 were primary sources and five were secondary sources. Ten were concerned with the relationship between class size and academic achievement in one or more areas, five examined class size in relation to one or more aspects of educational environment, and five looked at the effects of class size on both achievement and environment. Seven of the studies/reviews involved elementary students, two involved secondary students, six were concerned with both levels, and five did not specify the age/grade range studied.

Findings

The studies reviewed suggested three hypotheses:

1. *Small classes have a positive effect on the academic achievement of elementary and secondary students.*

2. *Small classes have a positive effect on student attitudes and behavior, teacher morale, classroom processes and other indicators of the quality of the classroom environment.*

3. *There is no optimal class size for all instructional situations. Appropriate class size is dependent on student age/grade, student aptitude, subject taught and instructional methods used.*

Each of these hypotheses has considerable support, but the third hypothesis — that there is no optimal class size in isolation of other factors — is supported by both the largest number of studies and the largest number of high-quality studies. What this means is that the research to date tells us that reducing class size (or, for that matter, increasing it) will not automatically produce any particular, foreseeable result. Other factors, such as the instructional methods used in a class of a given size, are as important or more important than the class size *per se*.

However, although a certain class size cannot be expected to lead to any particular outcome *in general*, the research does suggest that small classes can be beneficial in certain situations. There are indications, for example, that the achievement of disadvantaged, low-ability, special education or primary age students is enhanced by smaller classes. Very small classes, those with five or fewer students, appear to produce considerably higher achievement than average size classes, although the evidence for this has emerged chiefly from studies of short-term instructional situations. Some studies found both that smaller classes are beneficial and that large classes — especially very large classes — are detrimental.

The evidence is stronger concerning the relationship of class size to various indicators of the quality of the educational environment. Nine of the documents reviewed found better student behavior, higher teacher morale and more effective instructional practices in conjunction with small classes. Moreover, the non-research writings examined indicated that students and parents generally preferred smaller classes and that teachers overwhelmingly preferred them.

Conclusions

Reducing or increasing class size will not automatically produce any particular, foreseeable effect on achievement. Increasing class size is inadvisable, especially with regard to issues of student behavior and classroom management. Students, especially academically needy and younger students, can benefit from smaller classes if the instructional approach is designed to take advantage of the smaller class size. Teachers, students and parents prefer smaller classes. Smaller class size has the potential for stimulating the development and use of improved instructional methods, but will not automatically do so.

Recommendations

1. It would be inadvisable to reduce or increase class size generally in hopes of producing any particular educational outcome. Some kinds of instructional methods appear to work best with — or are only possible in — smaller classes. Following the recommendations of several of the researchers, we would recommend devoting attention to improving instructional methods, rather than altering class size in general.

2. However, operating smaller classes for academically needy and younger students appears beneficial, and schools are advised to make possible smaller instructional settings for such children if resources can be made available to do so.

3. Additionally, since small instructional groupings are possible within large classes, it is recommended that schools consider ways to make small group instruction available, especially to academically needy children, for some portion of the school day. Use of aides as small group instructors, for example, could occur simultaneously with larger group activity conducted by the classroom leader.

4. It is not recommended that additional research on class size be initiated — at least not the kinds of research conducted to date — as it is likely to produce more of the same contradictory findings noted in this paper. It may be worth considering, however, for educators to lend support to research which examines the relationship between opinions, attitudes and preferences, on the one hand, and outcomes. It may be that the shared preference for small classes among teachers, students and parents can bring about higher quality learning and learning environments when small classes are made available.

Topic: Computer-Assisted Instruction

Authors: P. Rapaport/W.G. Savard

Date: December 12, 1980

Overview

Educators have recently begun to examine computer-assisted instruction (CAI) more closely, due to the recent slashing of computer costs caused by the technological advances which produced the mini- and micro-computer. These technological advances have rendered obsolete CAI cost information which is over two years old. Micro-computers with enough power to provide CAI practice, problem solving and simulation are now quite inexpensive, some costing less than $2,000. Over a four-year period, such a system could cost less than $1 per student hour, including courseware, thus making CAI increasingly attractive from the financial point of view. There are also new levels of convenience. When CAI was first tried on a large scale, it was necessary to bring the students to the computer terminals. The present state of the art brings the computer to the student and requires no communication costs, no special operating personnel and little or no modification of facilities. The basic remaining question then is, how well does it work in promoting student learning.

Major Findings

Achievement. The studies covered in this report are generally well-designed and show remarkable consistency in their findings. Almost every study finds that traditional instruction, supplemented by CAI, leads to higher achievement than traditional instruction alone. Two of the three reviews which are included in this report failed to report a single case of contradictory findings. Even the extensive review by Thomas (1979) could only uncover one secondary typing course, one college accounting class and one community college course where traditional instruction was found to be superior. All the elementary studies, and virtually all the secondary studies, report achievement gains by the students receiving CAI.

Studies of CAI as a replacement for traditional instruction are not as conclusive. Most of the studies reviewed by Edwards and her colleagues (1975) do not find CAI alone superior to traditional instruction. However, nearly half of those studies do find higher achievement in the CAI group.

A very few of the studies reported differences in the effectiveness of CAI based upon characteristics of the students. Three studies report that CAI is more effective for low ability students than for high ability students. Two other studies report that boys benefit from CAI more than girls do, but one study fails to find any differences. However, both of these findings may be caused by a ceiling effect; in both cases, the groups which improved the most had the most room to improve.

Attitude. Most studies find that CAI students have a better attitude toward the subject matter than students who received traditional instruction alone. Many studies do not find a difference in attitude, and Thomas's review found one study with more negative attitudes in the CAI study. This was in the same community college study which found less achievement in one of the CAI groups. The usual finding is that students have a very positive and enthusiastic response to the CAI course.

Other Findings. All of the studies which reported the amount of time taken by students to learn the material found that, compared with traditionally instructed students, CAI students completed the same material in less time or more material in the same time. There is no consistent evidence that there is any difference in the retention rates of CAI and traditionally instructed students. Thomas (1979) reviewed three studies which show that students can be assigned to share terminals and still achieve as much as students assigned to individual terminals.

Conclusions

The research findings make it clear that CAI is an effective supplement to traditional instruction. The evidence is not strong to support teaching by CAI exclusively; a combination approach seems to work best. Computer-assisted instruction is also popular with students and often improves their attitude toward the subject matter. The CAI approach usually results in the students learning more material in a given time period, or the same amount of material in less time. Fears that students would forget CAI learned material more easily than traditionally learned materials appear to be unfounded although findings in this area are mixed or inconclusive.

Recommendations

It is recommended that the use of computer-assisted instruction be actively promoted and expanded. This would be especially important for small schools in rural areas where it is difficult to offer full schedules of classes to limited numbers of students. It is also recommended that the use of computer-assisted instruction be increased with low-achieving students and with students who tend to be alienated by traditional teaching methods.

It is recognized that the development of CAI programs may be beyond the capabilities of some small districts. It is therefore recommended that the state take a leadership role in such development efforts, providing both financial support and technical expertise.

Topic: Instructional Grouping: Ability Grouping

Authors: Kathleen Cotton/W.G. Savard

Date: May 15, 1981

Ability grouping is a perennial subject of controversy. While homogeneous ability grouping (grouping students for instruction with other students of similar ability levels) is widespread and widely accepted, this practice is also severely criticized by many educators, psychologists, researchers, parents and students.

Homogeneous ability grouping involves using various measures of intelligence, aptitude and/or achievement to place students in instructional groups with others whose test scores are in the same general range. The most common arrangement involves classifying a given group of students into three ability levels. Heterogeneous ability grouping, on the other hand, involves placing students in groups composed of students of varying abilities. Heterogeneous grouping is sometimes achieved by randomly assigning all the students in a school or grade to instructional classes, and sometimes by deliberately assigning them to classes which represent a wide range of ability.

Proponents of homogeneous ability grouping argue that this structure accommodates individual differences by allowing students to work at their own rates with others of similar ability and with methods and materials geared to their level. They also contend that homogeneous grouping makes it possible for more individual attention from teachers, that students feel challenged to excel within their level and/or to be promoted to a higher group, and that classroom management and the delivery of instruction is made easier for teachers when students are grouped homogeneously. Many homogeneous grouping advocates claim that students achieve more and have more positive attitudes within this arrangement.

Those who favor heterogeneous grouping argue for their preference on several different grounds. Leaving aside for the moment the question of which grouping arrangement produces the most positive student outcomes, many people contend that true homogeneous grouping cannot be achieved and that attempts to achieve it create more problems than they resolve. It is argued, for example, that the testing procedures used to place children in homogeneous groups frequently result in improper placements. And even when initial placement is appropriate, individual strengths and weaknesses, at any given moment and especially as these develop over time, will always bring about a tendency toward heterogeneity within groups. Homogeneous grouping is also criticized on grounds of being undemocratic, of adversely affecting the self-concepts of all children by placing a stigma on members of the lower groups and giving higher-ability children an inflated, unrealistic sense of their own worth. Since most life experiences do not occur in homogeneous ability groups, it is argued, such grouping inhibits the development of flexibility and the capacity to interact successfully with a wide range of people. Critics of homogeneous grouping also contend that this format causes teachers to be less sensitive to individual differences by creating a false sense of the sameness or similarity of students' affective needs, learning styles and so on.

One of the most serious charges leveled at the practice of homogeneous ability grouping is that it favors students of white, middle-class backgrounds and exacerbates problems of social discrimination. Since both formal and informal placement methods frequently reflect white, middle-class values, their application often results in "low-ability" classes which are an extremely heterogeneous mix of the mentally slow, the emotionally disturbed, the physically handicapped, the non-English speaking, the poor and those from minority groups.

Proponents of heterogeneous grouping advance arguments, often impassioned ones, to the effect that heterogeneity in classroom groups permits different patterns of needs and abilities to emerge naturally and to receive respect; that it fosters social understanding and tolerance; that it prepares students to cope with a wide variety of people and situations; and that, since it results in achievement levels comparable to those obtained via homogeneous grouping, heterogeneous ability grouping should be the rule rather than the exception for arranging instructional classes.

It can readily be seen that the ability grouping issue is really several issues. This summary attempts to address those about which systematic research efforts have been conducted and for which meaningful findings are available.

Twenty-four items were examined in preparation for this summary. Twenty of these proved to be valid, relevant research studies or reviews. Ten writings were concerned with students at the elementary level, four with junior high, one with secondary and five with the whole elementary-secondary range. Outcome areas examined included reading (three studies); math (two studies); science (two studies); general achievement (two studies); and achievement in one or more areas combined with student attitude, student self-concept or both (eleven studies).

Findings

Some of the items reviewed concerned the effects of either heterogeneous or homogeneous ability grouping on the achievement or affective development of students in general. Others looked at the effects of grouping one or more categories of students (high-, middle-, and low-ability). Still others examined the effects of grouping on students in the aggregate, and then looked at the discrete effects on students of different ability levels. Because these different kinds of inquiry were carried out, many kinds of findings were generated. These included all possible combinations of type of grouping; level of student ability; kind of outcome and whether the effect was positive, negative, no-difference or inconclusive. To give structure and meaning to these various findings, four hypotheses were generated:

1. **Students in the aggregate perform equally well academically and have comparable attitudes and self-concepts whether they receive instruction in homogeneous or heterogeneous groups.** *This hypothesis was written because, as referenced above, a number of the researchers looked at the effects of different grouping patterns on students generally. Of those who did, some found homogeneous grouping to be advantageous, and some favored heterogeneous grouping, but the most frequently cited finding was that there are no significant differences between the two arrangements. This finding, while apparently true when all effects on all students are averaged, is nevertheless quite misleading, as is demonstrated by the findings emerging from studies of particular groups of students. These are cited below.*

2. **Homogeneous ability grouping has a positive effect on the achievement, school attitudes and self-concepts of high-ability students.** *This hypothesis receives a great deal of support from the studies and reviews examined. Academically capable students of all age/grade levels, when grouped homogeneously, consistently outperformed their intellectual counterparts who studied in heterogeneous settings. Findings concerning school attitudes and self-esteem were not quite so consistent, but here, too, the homogeneously grouped, high-ability students evidenced more positive outcomes.*

3. **Homogeneous ability grouping has a negative effect on achievement of middle-ability students.** *Of the researchers who looked at the effects of heterogeneous and homogeneous grouping arrangements on students of different ability levels, few concentrated their inquiries on students of average ability. Hence, there is not a great deal of supporting (or, for that matter, denying) evidence for this hypothesis among the studies reviewed. Such research findings as there were tend to support the hypothesis, though this is far from conclusive. Investigations of the effects of grouping arrangements on the effective development of middle-ability students, as opposed to students of other ability levels or to students in general, were not undertaken in the studies reviewed.*

4. **Homogeneous ability grouping has a negative effect on the achievement, school attitudes and self-concepts of low-ability students; conversely, heterogeneous grouping of these students has a positive effect on these outcomes.** *The evidence in support of this hypothesis is very strong. The negative effect of homogeneous grouping on the cognitive and effective development of students classified as low-ability is, in fact, the single greatest concern of those who have addressed the ability grouping issue. Several researchers noted that the presence of higher-ability students in groups with lower-ability children appears to enhance the learning process for the latter. As for effective development, a typical outcome was noted in a study which involved asking students in different ability groups why they thought they had been placed where they were. The preponderance of responses from children in the low-ability group were to the effect that I/we are too dumb; I/we don't know very much.*

Conclusions

It appears that the finding of no-difference between homogeneous and heterogeneous grouping for students in general means something quite different from what might initially be inferred. In most of the studies reviewed, the unit of analysis was the grade, class or instructional group — not the individual student. Therefore, the finding does not mean that students perform equally well in heterogeneous grouping arrangements, but rather that the very different effects on high- middle- and low-ability students average out to a no-difference result. The no-difference finding is, therefore, essentially meaningless. This is an important point, since several researchers who investigated the effects of grouping on students in general simply cited the no-difference finding as if it applied to all ability levels and to all students.

It seems, further, that high-ability students thrive on homogeneous grouping arrangements, both in terms of achievement and effective outcomes. These students perform very well in heterogeneous settings, too, but they do appear to benefit from the faster pace and greater challenge afforded by the homogeneous format. Their school attitudes and self-esteem are enhanced by the homogeneous grouping arrangement as well. Some researchers commented that high-ability children may also benefit from the positive powers of labeling. That is, high-ability children in high-ability instructional groups are, of course, perfectly aware that they are classified as "smart," and this may set in motion a self-fulfilling prophecy which works to their advantage both cognitively and effectively.

Children of average ability appear to perform slightly better in heterogeneous settings than in homogeneous ones, though the effect of grouping on the achievement of these students is not sufficiently researched to permit firm conclusions. No conclusions can be drawn about effects on the school attitudes or self-esteem.

Students in low-ability groups, whether their placement is appropriate or not, appear to suffer both cognitively and effectively from the homogeneous arrangement. If they are simply slow learners, they perform less well academically than slow learners who have the opportunity to study with higher-ability children. Like children of other ability levels, they are aware of how they are classified, and being in the low or "dumb" group negatively impacts their self-esteem and motivation. Students who are classified as low-ability learners for reasons other than simple low ability suffer these same outcomes, apparently because of the negative force of labeling and the lack of interaction with students classified differently. Inappropriate placements which occur because of student socio-economic status, racial or ethnic background, or handicapping conditions also raise social issues which are profoundly disturbing to many writers on the ability grouping issue.

Conclusions about the effects of ability grouping are of a somewhat different nature than those drawn with respect to other instructional grouping inquiries conducted and reported in this series of summaries. The reviews of class size and instructional group size research* revealed that both class size and group size can affect student outcomes, but that the effects are indirect. To the extent that small group instruction is beneficial for certain students, for example, the benefits are attributed to the kinds of instructional methods and materials used — not to the small group format *per se*. The above mentioned effects of ability grouping on students of different ability classifications, however, seem to hold true with various instructional methods, in various subject areas and for students of different age/grade levels. The group of students with whom Student X receives instruction, and how Student X feels about being in that group, seem to affect learning and effective development very directly. Some researchers commented that the very different effects of homogeneous grouping on different students are reinforced by teacher attitudes toward and expectations of students in different ability classifications.

Recommendations

Disraeli once commented wryly that, "Every woman should marry — and no man." Research on ability grouping suggests something similarly paradoxical, namely that high-ability children should receive instruction with one another, and that lower-ability children should receive instruction with higher-ability children. Given the impossibility of such an arrangement, what recommendations can be made based on ability grouping research?

1. *Schools which currently practice heterogeneous grouping and are experiencing satisfactory achievement levels and student morale are advised not to change to the homogeneous grouping format. Instead, it is recommended that higher-ability children be provided enrichment experiences to support their greater learning capacities and needs.*

2. *Administrators and teachers should be made aware of the very negative effects of homogeneous ability grouping on the cognitive and effective development of children classified as low-ability. These educators are invited to consider the use of heterogeneous grouping or a combination of heterogeneous and homogeneous grouping which would place students in heterogeneous arrangements for a part of the school day.*

*See *Research on School Effectiveness Project Topic Summary Reports: Class Size* and *Instructional Grouping: Group Size*, Northwest Regional Educational Laboratory, December 12, 1980 and May 15, 1981, respectively.

3. *Instructional methods and materials which can be effective with heterogeneous classes should be made known to teachers; development of such materials and methods should be undertaken as needed.*

4. *In cases where the decision has been made to institute or to maintain homogeneous grouping arrangements, several steps should be taken to mitigate the negative effects of this grouping format.*

a. *Students should not be classified through the use of only one measure of ability. Validated measures of learning ability should be used in combination with a systematic process involving teacher and administrator judgment. Efforts should be made to distinguish between learning ability* and learning *rate.*

b. Students should be re-evaluated frequently to insure appropriateness of placement.

c. Special care should be taken to insure that students not be placed in low-ability groups for reasons of cultural background, emotional or physical handicaps, or the lack of general knowledge that frequently afflicts poor children due to their narrower range of experiences.

d. Teachers should seek to mitigate the effects of homogeneous grouping in the classroom setting, encouraging all students to do their best and communicating to higher-ability children that the capacity to learn rapidly and well is a gift, not a right.

Topic: Instructional Grouping: Group Size

Authors: Kathleen Cotton/W.G. Savard

Date: May 15, 1981

Overview

In addition to the sizable body of research which has been conducted on class size,* many researchers have investigated grouping arrangements within classrooms to determine whether there is an optimum group size for teaching and learning. Such research is concerned with the relative effectiveness of whole class, small group and individualized instruction with students of various age/grade levels.

Research on instructional group size has been conducted in part because each of the commonly used grouping arrangements has its enthusiastic proponents. Among the supporters of each grouping format are people who contend that their preferred arrangement enhances student achievement and/or effective development, and others who have arrived at their preference because its use makes classroom activities easier to manage. If it can be established that a particular grouping arrangement is superior to others (either in general or for certain kinds of students and/or subjects), then changes in teacher behavior and materials selection would be implied for many schools. If, on the other hand, no particular grouping format shows significant advantage over any others, then local preferences should govern grouping decisions, materials selection and the delivery of instruction.

Are individualized instructional processes and materials essential to accommodate the learning differences of individual children? Do young children benefit from small group instruction? Or are factors other than group size responsible for student achievement levels and effective outcomes.

Seventeen items on instructional group size were reviewed. Six were deleted from the analysis, either because they were not research studies or summaries, or because they fell outside the scope of this project. Of the eleven valid, relevant items remaining, seven were primary sources and four were secondary sources. Two were concerned with elementary level students, four with junior high, four with secondary and one with elementary and secondary. The outcome areas analyzed included reading (one study), math (three studies), science (one study), general achievement (four studies), and a combination of achievement and attitude (two studies).

Findings

Two major trends were noted among the studies reviewed. One has to do with the effects of instructional grouping on the achievement of young children and led to the hypothesis that small group instruction has a positive effect on the academic achievement of children in the primary grades. The three items reviewed which lent support to this hypothesis were all secondary sources which, collectively, reported the findings of more than 30 studies.

The researchers and reviewers of research studies were quick to point out that there is nothing magical about the benefits conferred on young children's achievement as a result of small group instruction. Rather, they focused on the conditions observed in small group settings which were found to foster achievement gains. These included: highly structured and systematic instructional patterns, more teacher interaction and immediate feedback/reinforcement, and greater amounts of student time-on-task. It was also noted in an investigation of the effects of independent study that this approach requires a degree of maturity and responsibility which is very often beyond the developmental level of primary students. Further, in one review, it was observed that unsupervised small group work is negatively correlated with achievement, lending further support to the notion that young children require interaction and guidance for successful learning. As one reviewer put it,

*See *Research on School Effectiveness Project Topic Summary Report: Class Size*, Northwest Regional Educational Laboratory, December 12, 1980.

"... at the early levels of instruction, pupils fare better with closer teacher supervision and help. Pupils at the upper levels appear to have acquired at least a sufficient number of classroom behaviors to be allowed more autonomy in the learning process."

A second hypothesis suggested by the studies reviewed is that, beyond the primary grades, students achieve equally well and have comparable attitudes and self-concepts whether they receive instruction individually, in small groups or in whole class settings. Although the findings of some researchers favored one grouping arrangement or another and some were inconclusive, the majority found no significant academic or effective differences among students in the various grouping formats. This trend among the studies held true for all kinds of comparisons — individualized vs. small group, individualized vs. whole class, small group vs. whole class and comparisons of all three formats.

In this group of studies fewer reasons were advanced to explain the findings than were offered by the researchers of primary level grouping arrangements. One researcher did, however, comment on the implication of the no-difference finding: "Schools initiating individualized programs (which had been compared with traditional instruction) should be prepared to justify the time and expense involved in terms of goals other than those based on cognitive achievement."

Conclusions

Based on the findings of the studies and reviews examined, two conclusions can be drawn. First, children in the primary grades evidence higher achievement levels when they receive instruction in closely supervised, highly structured small group settings. (The studies reviewed did not address effective outcomes for primary children.) Second, for older elementary and secondary students, factors other than grouping arrangements appear to influence achievement and effective outcomes, as significant differences were not found among students grouped in different ways.

Another subject addressed by some of the research on group size is the issue of ability grouping, which is discussed in another report in this series.*

Recommendations

Those responsible for determining whether students will study alone, with partners, in small groups or in whole class settings are encouraged to consider the following recommendations:

1. *Children in the primary grades should receive as much small group instruction as is possible. Within this instructional arrangement, these children should be closely supervised, receive frequent reinforcement and feedback, and their lessons should be highly structured.*

2. *Reasons other than hoped-for outcomes in student achievement and attitude should guide decisions about grouping arrangements for older elementary and secondary students. Student grouping decisions should be made which result in appropriate matches between grouping format, on the one hand, and factors such as instructional materials, teacher style and preferences, student learning styles, facilities available and costs involved.*

*See *Research on School Effectiveness Topic Summary Report: Ability Grouping*, Northwest Regional Educational Laboratory, May 15, 1981.

Topic: Parent Participation

Authors: K. Cotton/W.G. Savard

Date: December 12, 1980

Overview

The participation of parents in the education of their children is a subject which has received considerable attention in recent years. Research conducted in the 1960s indicated that various home factors, such as parents' socio-economic status, educational level and attitudes toward education, had more influence on children's school performance than all school-controllable factors combined. At the same time, society began to respond to reports of declining test scores and increased school discipline problems by calling for greater accountability on the part of the schools. Educators were told, in effect, that they must do more and that their capacity to do more was severely limited by factors beyond the school's control.

In response to these strong and seemingly contradictory messages, the educational community, with considerable federal support, began to develop programs which would enhance — and, in many cases, compensate for — the effects of home influences on the school performance of children. Many of these programs had parent involvement components. There were several reasons for seeking parents' participation in the education of their children: providing additional instructional time for the children in cases where parents tutored them in the home, increasing parents' valuation of schooling and their skills in supporting their children's learning, and reducing the home-school tensions that accompanied society's demand for greater accountability from the schools.

In recent years, various research projects have been undertaken to determine whether parents' involvement in their children's education does in fact bring about the outcomes such participation is intended to produce. Most of these studies focus on parent participation in the education of preschool and elementary children and its relationship to the academic achievement of those children.

Findings

The question addressed by the search and examination of the research literature was: Do programs which involve parents in the education of their children have a positive effect on the academic achievement of the children? Twenty-six documents on the subject of parent participation were reviewed in preparation for this report. All were concerned with parent participation in programs for preschool and elementary school children; no studies on parent participation with secondary students were found. Of the 26 items, 15 pieces of research were judged to be both highly relevant to this question and sufficiently well-designed to yield meaningful results. Eleven were studies of the influence of parent participation on achievement, and four were review/syntheses of such studies.

The studies described in eleven of the fifteen reports found that parent participation had positive effects on children's achievement. Three of these eleven reported on several studies each, raising the total number of supportive studies to more than 50. Studies of preschool programs indicated that "early intervention" programs have the strongest and most enduring effects when: 1) children enter the programs as young as possible; 2) children remain in the program as long as possible; 3) parents are heavily involved; and 4) program content is designed to promote cognitive development rather than being play-oriented. The kinds of parent participation which have the most positive effects on achievement are regular home instruction and parents working with teachers and children in the classroom setting. Findings are inconclusive as to whether person-to-person training and supervision of parents as they work with their children at home has more positive effects than simply providing parents with an orientation and appropriate materials.

At the elementary level, similar findings emerged. Parent involvement in any degree was positively related to achievement in reading, math and "general achievement", depending on the individual study. Further, home tutoring on a regular basis was found to be the most effective form of parent participation. The least intensive forms of parent participation — filling out a questionnaire, attending a single meeting — had the smallest effects on achievement, though these had a more positive effect than no participation at all. In fact, one of the two reports which did not support the efficacy of parent participation in promoting achievement dealt only with "informal parent-teacher communications," a nonintensive form of parent participation. (The other report was a review of 23 studies, in which "nearly all' showed parent participation to be effective and "a small portion" did not.)

Three studies were inconclusive — two because the effects of parent participation programs varied from year to year and one because only one of two groups of trained parent tutors had higher achieving children than the control group.

Overall, the studies found that parent participation had a positive effect on children's achievement, and the more extensive the participation, the more positive the results. These findings emerged from studies of both preschool and elementary children; with a variety of academic achievement measures; in rural and urban settings; and with disadvantaged, special education and regular education students. Several studies cited positive outcomes other than achievement gains, including improved self-concept of parents and children, improved school-community relations and better student work habits.

Conclusions

The studies reviewed and item reports lead to the conclusion that programs involving parental support of young children's instructional programs can have a powerful effect on the achievement levels of these children. Instruction of the child by the parents in the home on a regular basis is the single most productive form of parent involvement, though nearly any degree of participation by parents produces some positive effect.

Recommendations

Based on the pattern which emerges from the studies reviewed, project staff recommend that:

1. *Schools make parents aware, via information flyers, meetings, and other methods, that they, the parents, have a tremendous influence on the academic performance of their children. Ways that parents can support children's educational experience should be enumerated.*

2. *Support for preschool programs be given a high priority and that programs developed have a strong parent participation component. It is further recommended that programs be developed or modified so that cognitive development is emphasized and program participation begins early in children's lives.*

3. *Methods to engage parents in tutoring their preschool and elementary children be developed (or existing methods be adapted) and parent tutoring programs be implemented and given active financial support.*

Topic: The Principal as Instructional Leader

Authors: K. Cotton/W.G. Savard

Date: December 12, 1980

Overview

During the 1960s and 1970s several major studies on educational innovation and change found that the school principal was the single most important factor in the implementation and "staying power" of educational improvement efforts. Since so many school innovations appear to stand or fall depending on whether the principal was supportive and involved, many educators reasoned that principals could increase the effectiveness of school programs generally by taking an active instructional leadership role. This notion received further support from the many newspaper and journal reports of school improvements effected by principals who focused their energies on the instructional program. Such reports credited the principal's instructional leadership as the major factor in increased achievement levels, higher teacher morale and better overall school climate.

Much of the recent literature on the roles and responsibilities of principals has, therefore, been devoted to the subject of the principal as instructional leader. Many writers ask whether, in addition to managing budgets, facilities, personnel and public relations, the school principal should take an active role in planning and developing the school's instructional program. Many others begin with the assumption that the principal's instructional leadership is advisable, important or even crucial, and then suggest ways that principals can improve program content, staff inservice or their own competencies as instructional developers.

Few of the writings on principals as instructional leaders are reports of research studies, and only a small portion of those are concerned with the *outcomes* of principals serving in the instructional leadership role. They tend, rather, to ask what percentage of principals are instructional leaders, whether they or others feel that principals should be instructional leaders, or whether principals are competent as instructional leaders. Only rarely has research asked whether principals' performance of the instructional leadership role has any bearing on school effectiveness.

Finally, most research which has focused on outcomes is informal, observational and journalistic in approach; discusses effects other than student outcomes; and/or fails to establish direct connections between the principal's instructional leadership and the outcomes noted.

Twenty-seven documents concerned with the instructional leadership role of the principal were reviewed. Only seven of these proved to be reports of valid, relevant studies. All were primary sources. Six were concerned with elementary principals and students, and one dealt with both elementary and secondary.

Findings

Examination of the studies led to the hypothesis that active instructional leadership on the part of elementary school principals has a positive effect on the academic achievement of students. All seven studies found the principal's instructional leadership to be either *a* major factor or *the* major factor in the achievement levels and gains in the schools studied. The instructional leadership provided by principals was positively related to achievement in reading (two studies), reading and mathematics (two studies), and "basic skills" (three studies).

Several of the studies were concerned with so-called "outlier" or "maverick" schools — schools in which achievement levels equal or exceed national norms in spite of factors usually correlated with low achievement (e.g., student populations from low-income families, minimal school resources). In an attempt to identify the difference between high- and low-achieving schools with similar — and unpromising — demographic characteristics, these studies found the leadership provided by the principal, particularly in instructional planning and decision making, as a major factor present in the high-achieving schools studied.

The particular instructional leadership behaviors cited as promoting student achievement included: 1) frequent observation and/or participation in classroom instruction; 2) communicating clearly to staff what is expected of them as facilitators of the instructional program; 3) making decisions about the instructional program; 4) coordinating the instructional program; 5) being actively involved in planning and evaluating the instructional program; and 6) having and communicating high standards/expectations for the instructional program. These behaviors were found to have a positive effect on reading achievement and an even more positive effect on mathematics achievement.

Many of the schools studied had principals who were effective managers of buildings, budgets, and so on, but were not actively involved in the instructional program. Interestingly, there were no examples of the reverse. A few of the principals studied were judged globally ineffective and some, as noted above, performed well as administrative managers, but poorly or not at all as instructional leaders. In every case where effective instructional leadership on the part of the principals was noted, however, that individual was also effective as a financial manager, facilities manager, and so on.

Conclusions

Given the small number of studies available on the effects of principals serving in an instructional leadership capacity, any conclusions drawn from their findings must be regarded as tentative.

It does appear, however, that when principals assume an active instructional leadership role, student achievement is enhanced. The fact that several of the supportive studies focused on disadvantaged students lends additional weight to this conclusion.

It also appears that the positive effect of the principal's instructional leadership is both direct, as when principals observe and participate in instructional activities with students, and indirect, as when teachers working closely with principals go into the classroom with instructional plans that are clear, shared and supported.

Recommendations

Because research on this topic is sparse, it is recommended that educational administrators and policy makers approach this matter with restraint. Unfortunately, the principal-as-instructional-leader has become a "buzz" term and a "bandwagon" concept. Merely designating the principal as instructional leader will not cause him or her to become one. What the limited amount of available research says is that if the principal happens to be a bona fide instructional leader, it will lead to beneficial educational impacts. Perhaps the most important factor is that real educational leadership be provided or identified within the school. Hopefully, this leader will also be the principal. This is not a new idea — remember, the term principal is merely a short version of *principal teacher*. The original focus was on educational leadership.

Some direct action can be taken. Certainly when filling vacancies, job descriptions should reflect the expectation that the principal's primary responsibility is instructional leadership. Job qualifications and certification requirements should also reflect this expectation. The institutions which prepare principals should also structure course work to support this expectation. Whenever principalship vacancies exist, the recruitment, screening, and selection process should emphasize the importance of the instructional leadership role.

One thing should *not* be done. It would be a real mistake to cause a wholesale rewriting of existing principals' job descriptions designating them as instructional leaders. Some of them cannot and will not be, and yet they are good and useful administrators. In these cases, it will be important to recognize this and provide for instructional leadership through other means. A first step should be to provide principals with training opportunities to become better instructional leaders. Another option, which is probably limited to large schools, would be to provide a second administrative position such as assistant principal for curriculum and instruction. In smaller schools the roles of department chairman and/or grade level chairman might be expanded. However, it appears to be clear that the first choice should be a principal who is fully qualified to provide instructional leadership directly.

Additional research is needed on this topic and administrators and policy makers are urged to support carefully designed studies of educational leadership whenever possible.

Topic: Time Factors in Learning

Authors: Kathleen Cotton/W.G. Savard

Date: February 20, 1981

Research on instructional time has sought answers to a number of questions: What is the relationship between the time allocated for the study of a given subject and achievement in that subject? Does increased time-on-task actually produce achievement gains? Is there a more meaningful measure of productive instructional time than the time-on-task concept?

The questions are important ones. As more knowledge is gained about the effects of time factors on educational outcomes, implications emerge for curriculum development, for teacher training, for school staffing and scheduling and for other aspects of the educational process, such as classroom planning.

The sizable body of research on the relationship between instructional time measures:

1. **Allocated time:** *the amount of time scheduled for learning activity and in which the opportunity to learn is present.*

2. **Engaged time or time-on-task:** *the amount of time spent paying attention to a learning activity and attempting to learn.*

3. **Academic learning time (ALT):** *the amount of time spent by a student in an academic task that he or she can perform with high success.*

Forty-eight documents on instructional time were examined. Eleven of these were deemed irrelevant, either because they were not research studies or because certain relationships between time and learning were assumed rather than investigated. Two of the studies were reported in more than one source and under different titles; in both cases, the second report retrieved was eliminated from the analysis. Thirty-five valid studies, which were relevant to one or more of the time measures defined above, were reviewed in preparation for this report. Twenty-eight were primary sources, six were secondary sources and one reported both a literature review and a research study conducted by its author.

The age/grade levels of the student subjects in these studies were: preschool/kindergarten-3, elementary-20, secondary-5, both elementary and secondary-5, junior high-1, not specified-1.

Three of the studies reviewed were concerned with both achievement and effective outcomes such as attitudes, self-esteem and coping skills. The achievement areas with which the studies were concerned included: reading-9, mathematics-4, both reading and mathematics-6, general achievement-10, science-2, social studies-1, language arts-2 and communication skills-1.

Finally, the kinds of time measures examined were: allocated time-13, engaged time-12, both allocated and engaged time-4, and these two measures plus academic learning time (a relatively new concept)-6. The findings emerging from these studies are organized according to these different kinds of time measures.

Findings

Allocated time. A review of the research studies which focused on allocated time suggested the following hypothesis: "There is a positive relationship between the amount of allocated time for studying a subject and achievement in that subject." Although the studies suggested this hypothesis, the picture which emerges from analysis of the studies is by no means perfectly clear (see Decision Display #1). Considerable numbers of high quality studies support this notion, and nearly as many equally well-done studies deny it. Most of the supportive studies revealed a "modest, but persistent" relationship between allocated time and achievement, especially for low-ability students and especially if greater time allotments are spent in interactive activities with the teacher rather than on homework or seatwork. Several of the studies state in their conclusions that, while allocations are obviously necessary for learning to take place, increasing allocated time without a comparable increase in activities which facilitate learning is not likely to promote significant achievement gains. Increases in allocated time were even found to have a negative relationship to achievement beyond a certain point and particularly for high-ability students.

Engaged time or time-on-task is much closer to the heart of the matter as a predictor of achievement. The studies suggested and overwhelmingly supported the hypothesis that "there is a positive relationship between the amount of engaged time given to a subject and achievement in that subject." Those students who appeared to spend the greatest amounts of time-on-task were higher achievers than those who were off-task by overt or covert measures. Some differences in achievement outcomes were noted, however, for different kinds of on-task behavior. Students who had high engagement rates in listening, discussing, question answering and other kinds of interactive classroom activities achieved more than those who had high engagement rates in only non-interactive activities such as seatwork. As one expressed it, when the students are on-task, but the teacher is not teaching, achievement benefits are modest at best.

Academic Learning Time (ALT). The few studies reviewed which were organized around the ALT concept were well-designed investigations and gave rise to the hypothesis that "there is a positive relationship between the amount of academic learning time given to a subject and achievement in that subject." These studies stress the inadequacy of allocated and engaged time amounts (and especially the former) as producers of achievement gains in and of themselves. Instead, these studies focus on the necessity for allocated time, plus task engagement, plus teaching methods and task content which result in the student working at an "appropriate level of difficulty and experiencing success." While these studies do not recommend eliminating seatwork, homework or individual student projects, they do emphasize that interactive approaches such as direct instruction are most effective in increasing the amount of ALT expended by students.

Conclusions

Learning, like all things, takes place in time, and time allocations are therefore necessary for learning to take place. If high- and low-ability students alike are unable to master a given lesson or unit in a certain period of time, benefits can be expected from increasing the time allocation. Low-ability students can benefit from various kinds of additional instructional time and practice, though some of these (such as parent tutoring, resource room participation) are much more effective than others (such as extra seatwork or homework). Increasing time allocations will not automatically produce achievement gains; benefits begin to accrue when additional time allocations are accompanied by effective instruction and appropriate task content.

The greater the amount of engaged time, the higher the levels of student achievement. While this point is rather obvious, establishing the importance of engagement rate serves to dissuade those who would increase allocated time alone in hopes of promoting achievement gains. High engagement rates in interactive classroom activities have a more positive effect on achievement than high engagement rates in non-interactive activities alone. While too few of the studies discussed effective outcomes for these to be a major subject of this report, there is evidence that engagement in interactive activities also enhances such attributes as self-confidence and attitude.

Of all measures of student learning time, the rate of academic learning time (ALT) constitutes the best predictor of achievement. Students working on material that is appropriately challenging and which is presented in such a way that interaction occurs between student and teacher and among students, can be expected to make significant achievement gains.

Recommendations

1. *Time allocations for the different subjects which comprise the curriculum should reflect the relative priorities given to the various subject areas. Since a "modest, but persistent" relationship exists between time allocations and achievement, schools and districts are encouraged to allocate relatively large amounts of time to those subject areas in which student success has been determined to matter the most.*

2. *Efforts should be made to keep the amount of classroom "dead time" at a minimum. Dead time rate, defined as the amount of allocated learning time during which the opportunity to learn is* **not** *present for one reason or another, was quite high in the classrooms studied and described. Business matters (taking roll, collecting lunch money), interruptions, discipline problems and situations in which there is nothing the students are expected to be doing, are pernicious dead time producers. Teachers and others are encouraged to deal with these matters efficiently so that reasonable amounts of allocated time are present.*

3. *Additional instructional time allotments should be provided for low-ability, low-achieving students, preferably in an interactive mode. Resource teachers and aides can provide extra time and help and, as demonstrated in a previous report in this series, parent-student instruction can be a powerful means of enhancing achievement.*

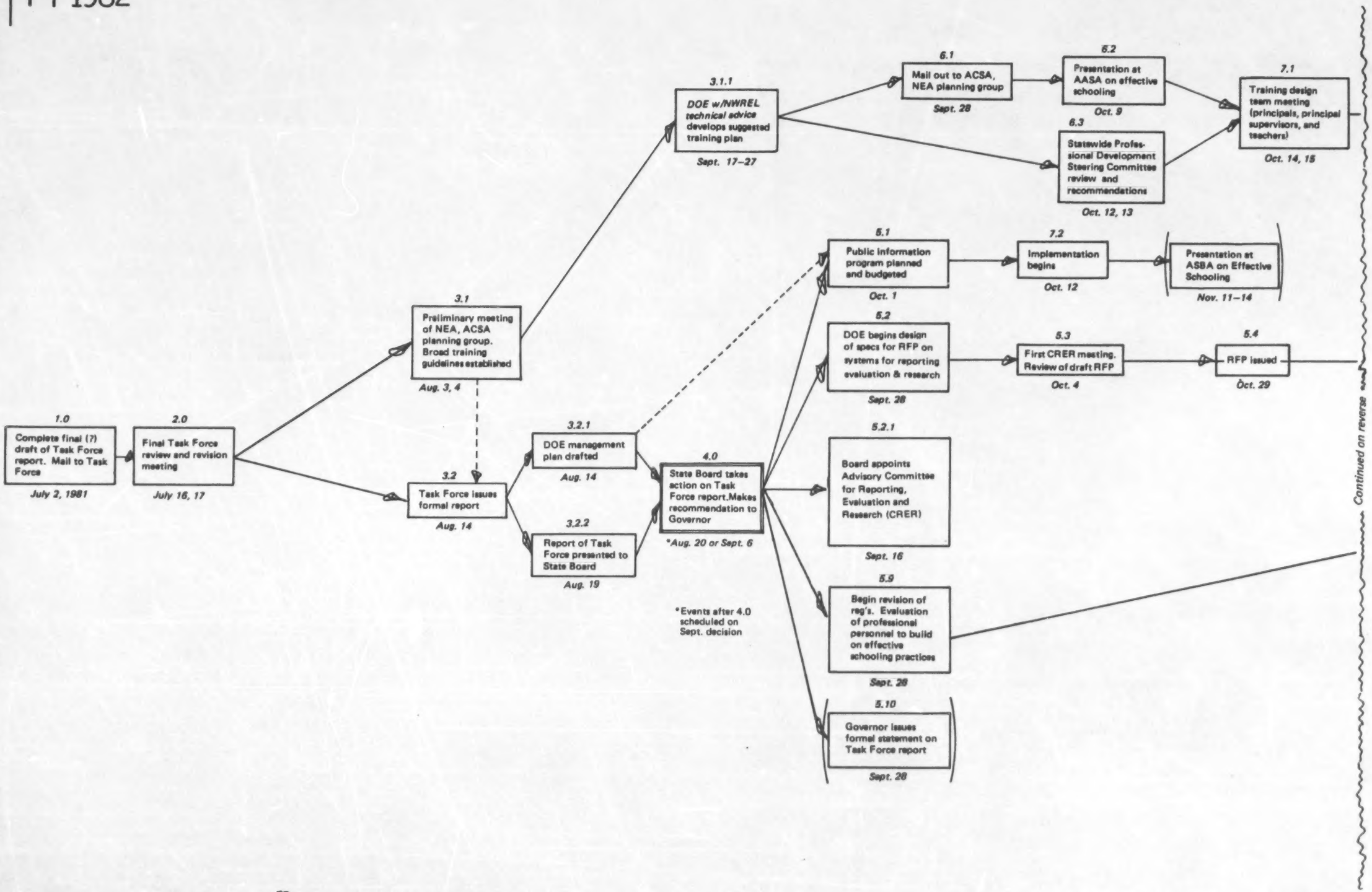
4. *Techniques which can increase the amount of time students spend on-task should be applied. Positive teacher feedback, interactive instructional methods, minimum amounts of dead time and the opportunity for students to select some of their learning activities have been shown to increase engagement rates, and teachers are encouraged to utilize these approaches.*

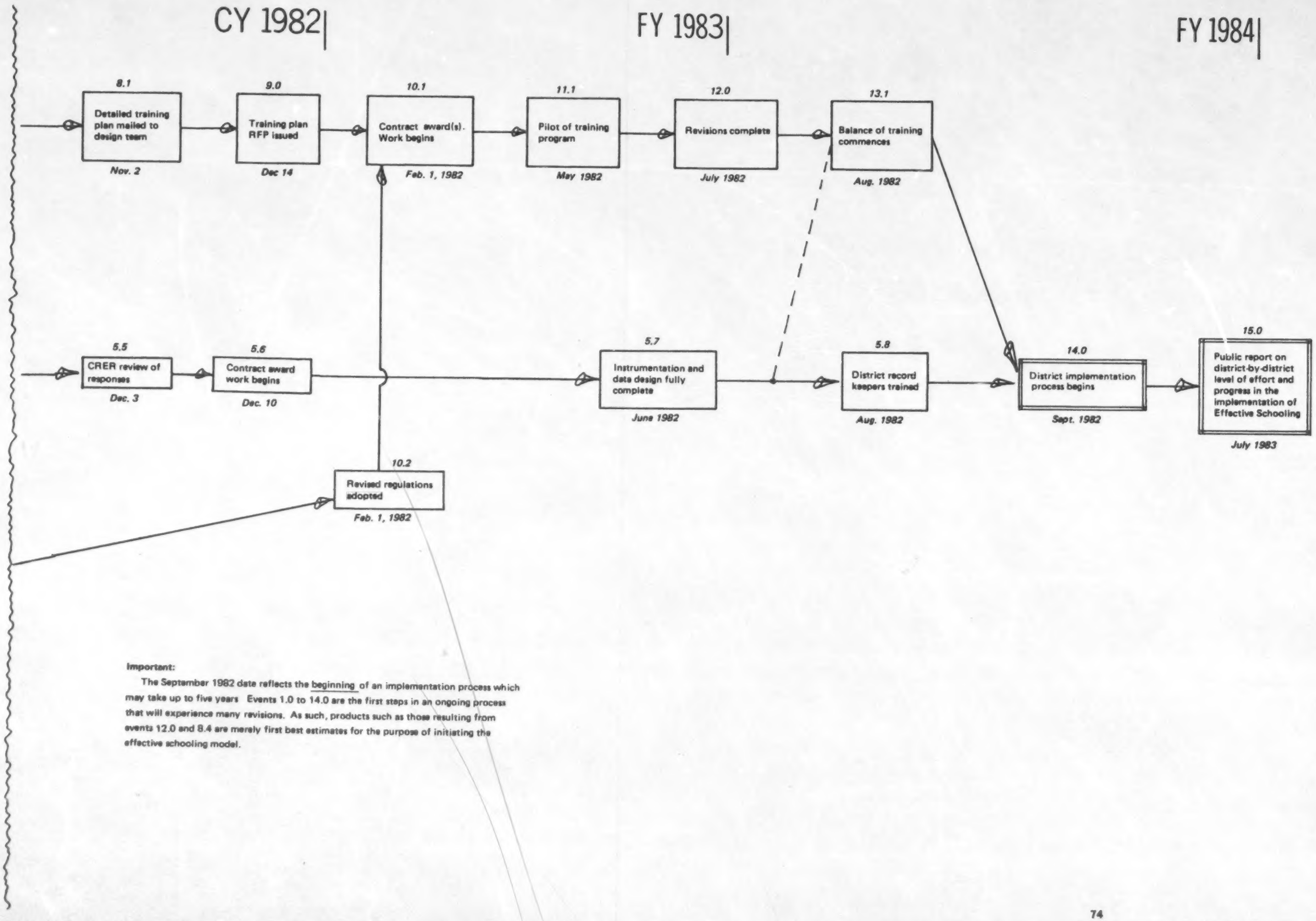
5. *Activities and methods which result in greater amounts of ALT should be utilized. Teacher familiarity with student academic history and ability level is essential in order that material at an appropriately challenging and rewarding level of task difficulty can be found and presented. Opportunities for teachers to become familiar with and to access a wide range of proven instructional materials should be provided in order that material which can facilitate ALT increases is available.*

APPENDIX III

Implementation Flow Chart

FY 1982


1.0
Complete final (?) draft of Task Force report. Mail to Task Force
July 2, 1981
2.0
Final Task Force review and revision meeting
July 16, 17
3.1
Preliminary meeting of NEA, ACSA planning group. Broad training guidelines established
Aug. 3, 4
3.2
Task Force issues formal report
Aug. 14
3.1.1
DOE w/NWREL technical advice develops suggested training plan
Sept. 17–27
3.2.1
DOE management plan drafted
Aug. 14
3.2.2
Report of Task Force presented to State Board
Aug. 19
4.0
State Board takes action on Task Force report. Makes recommendation to Governor
*Aug. 20 or Sept. 6
*Events after 4.0 scheduled on Sept. decision
5.1
Public information program planned and budgeted
Oct. 1
5.2
DOE begins design of specs for RFP on systems for reporting evaluation & research
Sept. 28
5.2.1
Board appoints Advisory Committee for Reporting, Evaluation and Research (CRER)
Sept. 16
5.9
Begin revision of reg's. Evaluation of professional personnel to build on effective schooling practices
Sept. 29
5.10
Governor issues formal statement on Task Force report
Sept. 28
6.1
Mail out to ACSA, NEA planning group
Sept. 28
6.3
Statewide Professional Development Steering Committee review and recommendations
Oct. 12, 13
5.2
Presentation at AASA on effective schooling
Oct. 9
5.3
First CRER meeting. Review of draft RFP
Oct. 4
5.4
RFP issued
Oct. 29
7.1
Training design team meeting (principals, principal supervisors, and teachers)
Oct. 14, 15
7.2
Implementation begins
Oct. 12
Presentation at ASBA on Effective Schooling
Nov. 11–14
Continued on reverse



Important:

The September 1982 date reflects the beginning of an implementation process which may take up to five years Events 1.0 to 14.0 are the first steps in an ongoing process that will experience many revisions. As such, products such as those resulting from events 12.0 and 8.4 are merely first best estimates for the purpose of initiating the effective schooling model.

APPENDIX IV

Sample Practices

The Task Force, in considering effective schooling practices, expressed a concern regarding school district staffs being able to readily identify current practices in Alaska. Accordingly, all districts were asked to provide the Task Force with copies of publications, program descriptions, or statements of procedures related to the six research variables reviewed by the Task Force.

A general source of information regarding programs, practices, and procedures is that of the Education Program Support Division (EPS), Department of Education, Pouch F, Juneau, 99811. EPS maintains a system entitled Alaska Knowledge Base, which includes Alaska developed instructional materials, nationally validated programs, commercial resources, and service agencies. In addition Alaska Knowledge Base is linked with San Mateo Educational Resource Center (SMERC), San Mateo, California.

Specific sources of information related to identified effective schooling practices are listed below by categories.

Computer Assisted Instruction

Alaska Gateway School District, Tok. Alaska Gateway has implemented computer assisted instruction in all of its schools.

Anchorage School District, Anchorage. The district has made an extensive commitment to computer assisted instruction.

Office of Educational Telecommunications and Technology (ETT), Department of Education, Juneau. ETT has developed courses in Alaska history and geography, English, developmental reading, and general mathematics. Courses in general science and U.S. History will be available for the 1982-83 school year. Also, ETT has an agreement with the Minnesota Education Computing Consortium (MECC) to provide access to 100 course units encompassing grades K-12. An additional 100 units will be available during 1982-83.

Instructional Leadership

Alaska Gateway School District, Tok. The district, composed of small rural schools, has one staff member assigned to work with staff in all schools in order to assist in providing instructional leadership.

Anchorage School District, Anchorage. The district has made an extensive commitment to enhancing instructional leadership. The Staff Development unit conducts a "Management Academy" on an ongoing basis.

Parent Participation

Alaska Gateway School District, Tok. The district has a defined system of communicating with parents, involving parents in needs assessment and planning, as well as a parent volunteer program. Alaska Gateway also operates preschool programs.

Anchorage School District, Anchorage. A well-developed parent handbook is provided to all parents in the district. District schools have developed additional materials for communicating with parents. At the elementary level, Baxter School has developed an effective booklet. The district has a structured community advisory committee system. Nunaka Valley School has a preschool program which is regarded by supervisors as being exemplary.

Bering Strait School District, Nome. Bering Strait, as have other districts, has implemented Asper/Folta Learning Experience Kits in its preschool programs.

Fairbanks North Star Borough School District, Fairbanks. The district has a development syllabus for preschool speech and language development.

Time Factors

Alaska Gateway School District, Tok. The district has specified time allocations for instruction, and has a system for monitoring the amount of direct instruction time for each student.

Anchorage School District, Anchorage. Fairview and Mountain View Elementary Schools have implemented systems for instructional time management.